

Manufacturers Record

Industry Construction



\$8.50 per Year.
Single Copy, 20 Cents.



Baltimore, Md.
OCTOBER 9, 1930

South Continues Construction Record

Since January 1, major construction contracts awarded in the South aggregated nearly \$750,000,000. This figure does not include building operations costing less than \$10,000 each, which is the minimum set in compiling the total valuation of contracts from items published in our *Daily Construction Bulletin*. No other similar nine-month period matches the value of new construction undertaken this year in the Southern states from January to the end of September. Such work is \$94,000,000 in excess of the amount reported for the corresponding nine months of the previous year, \$96,000,000 more than the five-year average 1925-1929, and is within \$30,000,000 of the total construction awards of the entire 12 months of 1929.

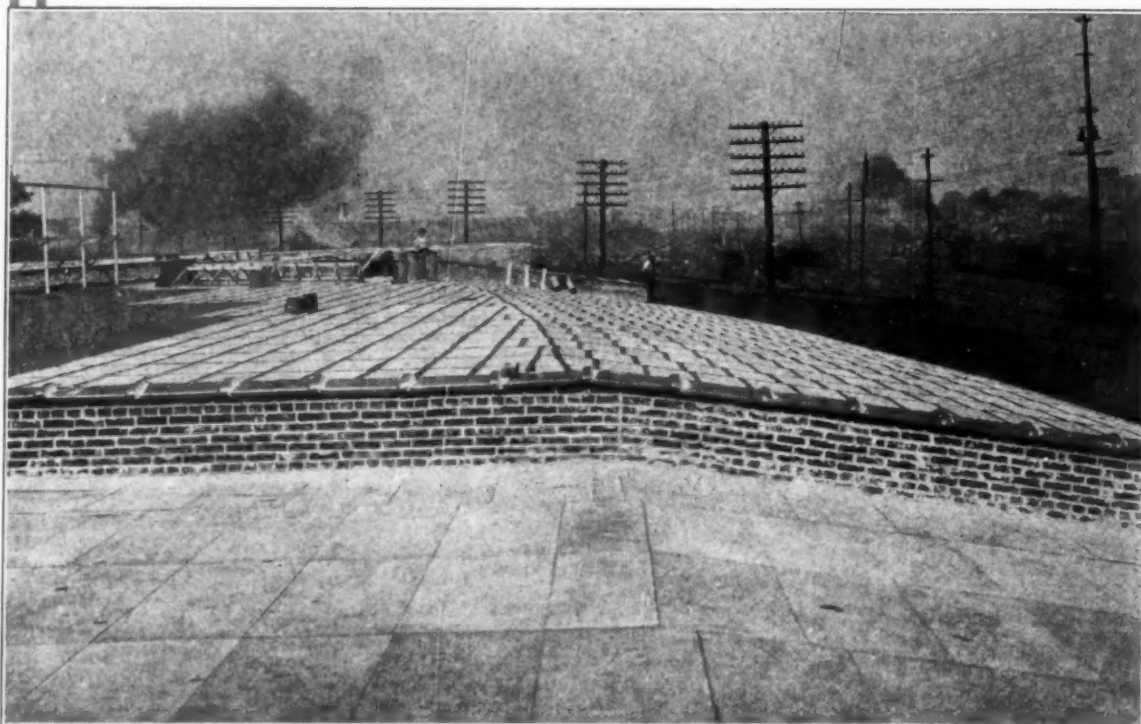
Surely this is a record to which the South can point as an example of what it has been doing toward aiding the business revival. If other sections and industries had made similar gains in activity the country would not have experienced the trying times of the past 12 months. Following is the South's construction record summary for three months, six months, nine months and 12 months:

Total	1930	1929	5-Yr. Average (1925-1929)
3 months	\$184,242,000	\$182,396,000	\$191,211,000
6 months	537,677,000	455,286,000	424,915,000
9 months	749,140,000	655,278,000	653,082,000
12 months	779,981,000	829,472,000

Contracts awarded for new construction in the South during September amounted to more than \$46,000,000. Major projects planned totaled \$61,699,000, which, of course, does not include the much larger carry-over from previous months and not yet let to contract. September is really the first month comparable under the depression period and it is of special interest that the value of contracts for last month was larger than for September, 1929. While there was a drop of 23 per cent in awards in September compared with August, it was much less than the nearly 50 per cent decline between August, 1929, and September, 1929, or the decrease of 43 per cent in building between August, 1928, and September, 1928. Public construction work has been the major factor, with highway building accounting for a large percentage of the total reported for last month.

Elsewhere in this issue the construction and building record of the South is discussed in detail.

A ROOF *that you'll* REMEMBER *as a* ROOF *you can* FORGET



*57,500 sq. ft. of Flat Cementile were used for a roof deck with composition water-proof covering on the Harris Transfer & Warehouse Co., Birmingham, Alabama.
Chas. M. Allen & Sons, Builders, Birmingham, Ala.*

The history of practically every Cementile roof is that, once laid, it can be forgotten—there's nothing more to be done, ever. No repairs, no painting, no maintenance of any nature.

But you'll remember it when you come to roof another building—you'll remember Cementile for its weatherproof, fireproof, trouble-proof properties. For its strength, safety and enduring qualities. For its lasting, efficient shelter and protection. And especially, because it proved the most economical roof, all advantages considered.

Cementile, covering over a hundred million square feet of buildings today, is proving these claims. For specific examples, write for the Cementile Book of facts and photos. You'll appreciate this information before you decide on your next roofing specifications.

AMERICAN CEMENT TILE MANUFACTURING COMPANY

804 Oliver Building - Pittsburgh, Pa.

Plants: Wampum, Pa. Lincoln, N. J. Birmingham, Ala.

Offices: Pittsburgh New York Philadelphia Boston Atlanta Birmingham

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It is Easy to Concentrate Your Purchases With Ryerson

Through more than eighty-seven years of business we have built up a complete service on all iron and steel products; machinery and tools. You can easily concentrate your purchases through this one source and save time and money.

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Immediate shipment of all standard sizes, cut to length.

Structural "I" Beams	Zees
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Ryolite "4 Point" Chisel Steel.
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STEEL - SERVICE

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"We BRING . . .



Above—Mr. C. A. Keeley of the Southern Rubber Company of Greensboro, North Carolina. This company's services are of a definite economic value to the prosperity of its business territory.

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We recommend Republic's Belting — Hose — Packing — Molded and Lathe Cut Goods."

The above statement is characteristic of those made by prominent distributors all over the country. It explains in part how the Industrial Supply Distributor, helping to solve the important problem of broad markets and economical distribution, upholds high quality, maintains fair prices and saves needless efforts on the part of both consumer and manufacturer.

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REPUBLIC RUBBER CO.**

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**REPUBLIC means
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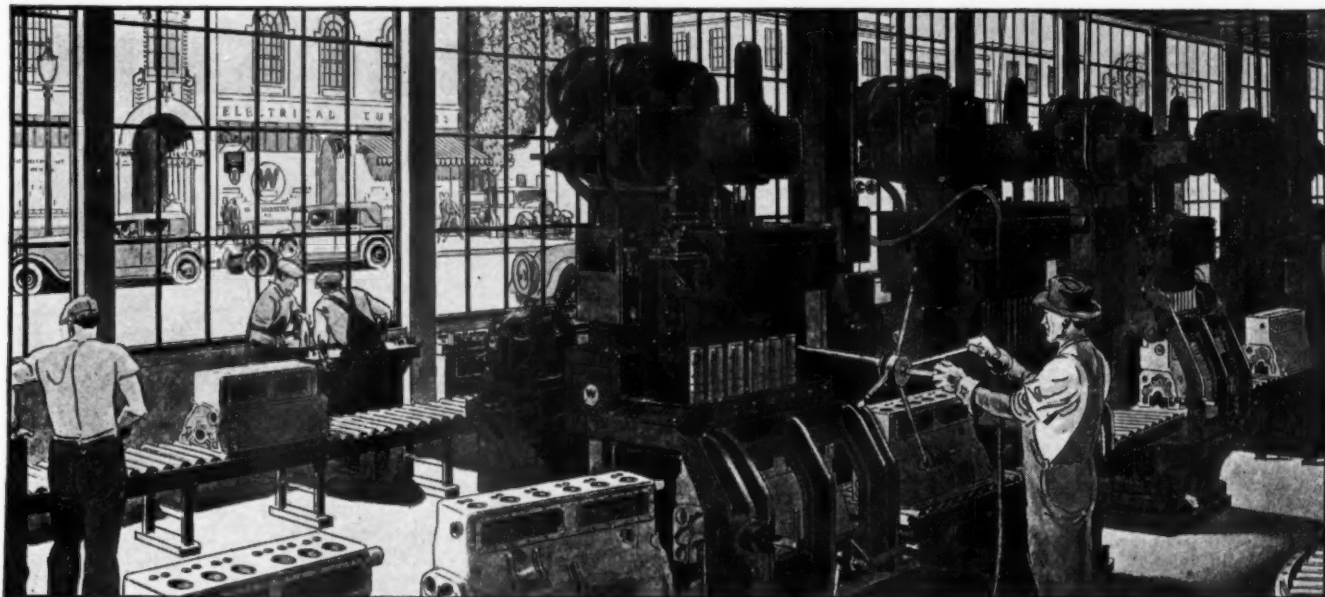


Republic's line of air hose, ranging in size from ½ in. to 1½ in. inclusive, in either the molded and braided construction - wrapped fabric construction - or - braided, but not molded construction will meet every known condition requiring this type of hose.

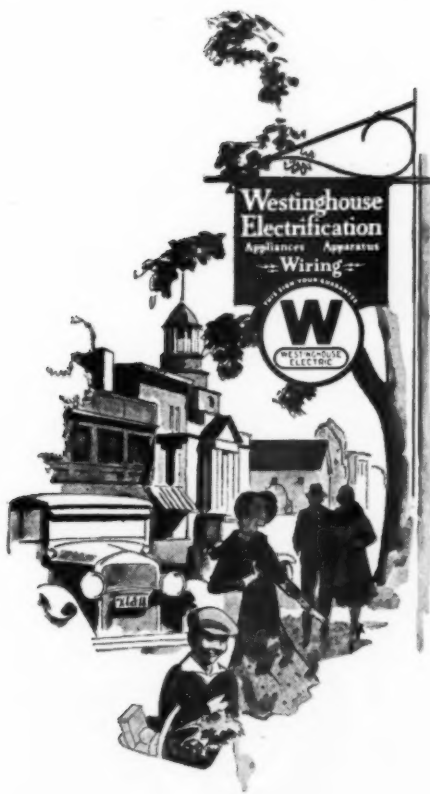
Write for sample and prices.



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LINKING power supply with production demands



"BUILD ME SOMETHING," says the manufacturer to the modern machine tool builder, "that will make this part quicker and more cheaply than we are making it now." "Certainly," is the answer—and in a short time the parts are popping merrily out of an amazing machine. A single operator stands at one end, feeding in raw stock while he manipulates a few simple controls. Every so often a man comes up with an electric truck and carries away the finished product. And that's all there is to it! A dozen operations rolled into one—and the machine tool builder has forged another

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Tune in the Westinghouse Salute over WJZ and the coast-to-coast network, every Tuesday evening.

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BLAW-KNOX BALL BEARING BUCKETS

cost no more to buy---cost less to operate. Thousands in use have proved conclusively that ball bearings prolong sheave life indefinitely, lessen cable wear and promote digging ability. These improvements are now available in the complete Dreadnaught line, for light excavating, for heavy digging, for all kinds of rehandling. All are described and illustrated in Catalog 1059---ask our nearest office for it before you buy your next buckets.



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THE Class "PRE" air compressor is the most satisfactory machine for any application calling for a large amount of air. It has every feature that promotes dependability, durability, and economy of operation. It is serving leading plants in many industries throughout the world.

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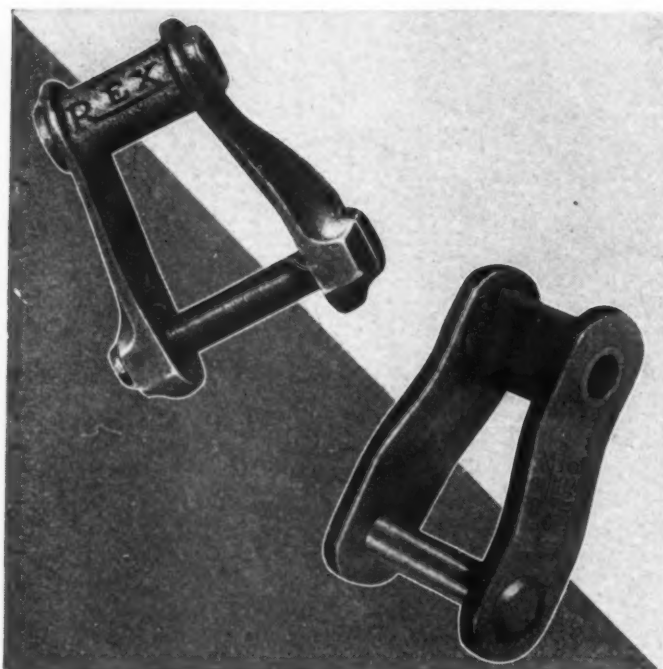
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Ingersoll-Rand

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A complete line of chains and auxiliary equipment for

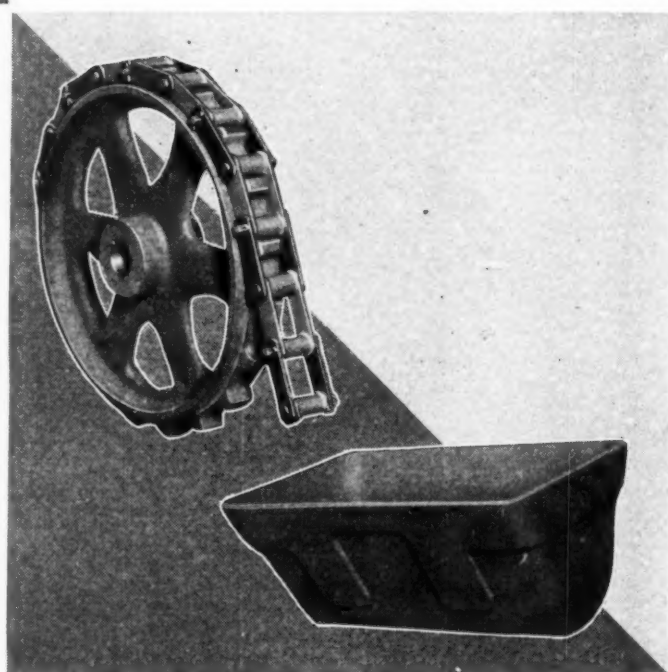
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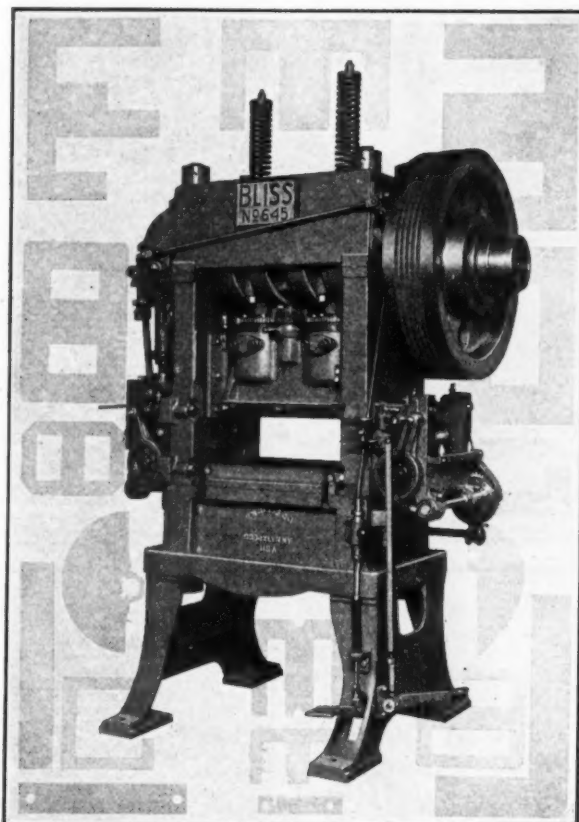
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SAW RIGS
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You can now get from stock a standard high production press with ample room for long follow dies for radio, motor and power transformer laminations,—a rugged, accurate press that operates at 200 to 300 strokes per minute!

Built in three sizes of 20, 45 and 75-ton ratings, these new double eccentric shaft

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You can use these machines for most any large-quantity job requiring progressive dies and get speedy production, long die life, silent operation, and low costs!

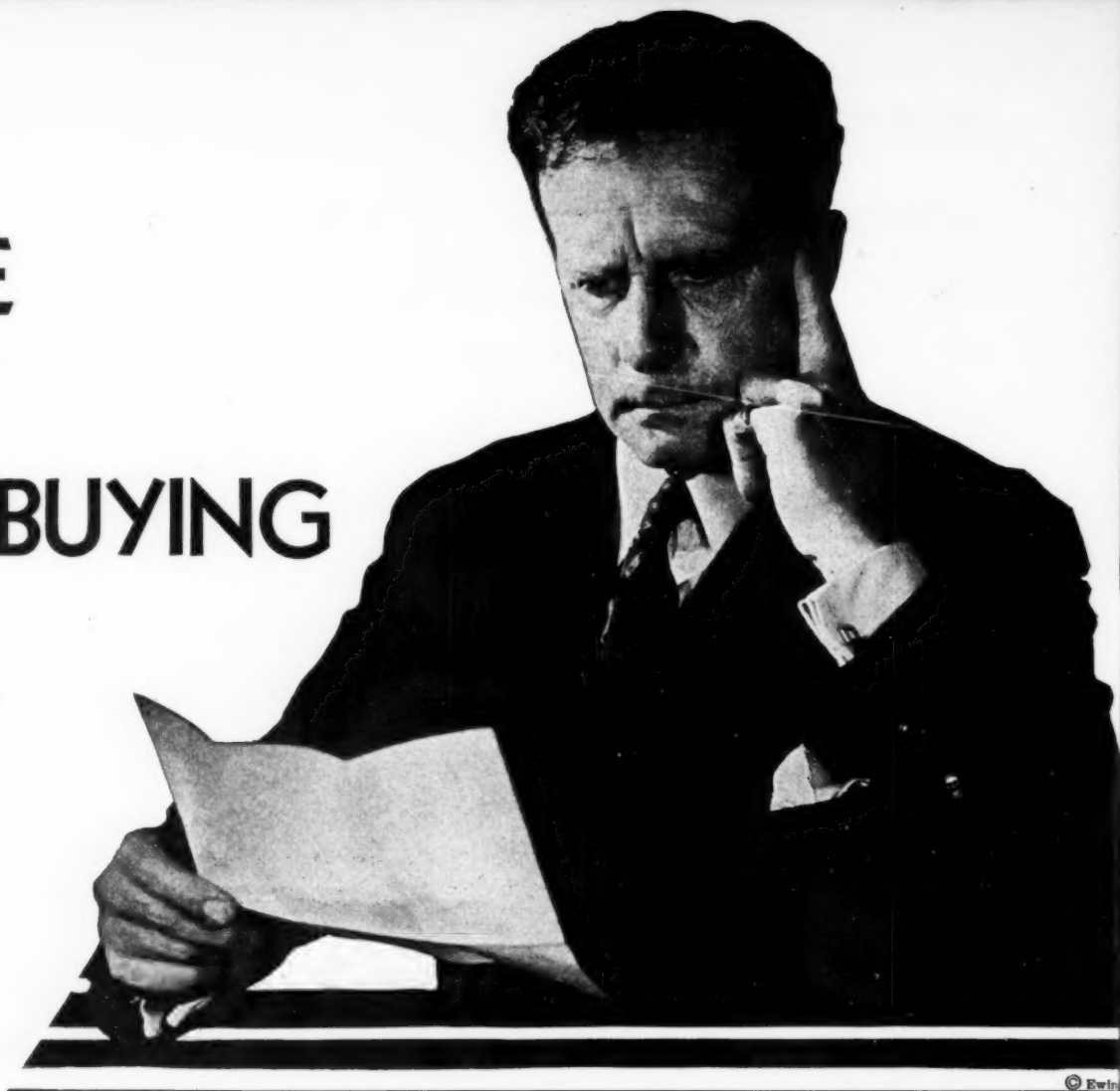
Write and tell us where we may send you a copy of our new catalogue section, P-6 Sup. A, describing this new line.

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THINK OF THE FUTURE WHEN BUYING NOW!

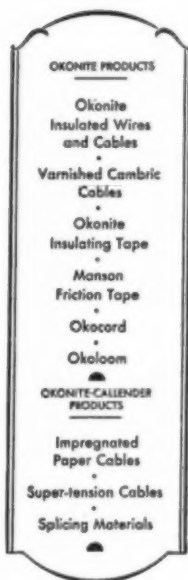


INDUSTRIAL depressions have an unquestioned salutary effect in forcing a review of purchasing practises which may have become extravagant during prosperous days.

But when money is tight there is a dangerous tendency to take chances with the quality of vital materials. Oblivious to the future cost of MAINTAINING a product in service, purchases are apt to be made solely on the basis of low first cost. Pinching pennies on important supplies may strangle a business with excessive future operating costs.

Insulated wires and cables represent a class of commodity whose first cost is only incidental. Under any condition, their cost is a small percentage of the cost of the equipment with which they are associated but whose successful operation depends upon their quality.

It pays to buy the best wires and cables available. It pays best to buy OKONITE.



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Founded 1878

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for TOM
Oklahoma



FOLLOW this trail of demonstrated satisfaction:

One Northwest in 1923
One Northwest in 1924
One Northwest in 1925
Three Northwests in 1927
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Nine Northwests in seven years — a profitable growth based on satisfactory service.

And you can expect the same service that Northwests have given others. That is why one out of every three Northwests is a repeat order.

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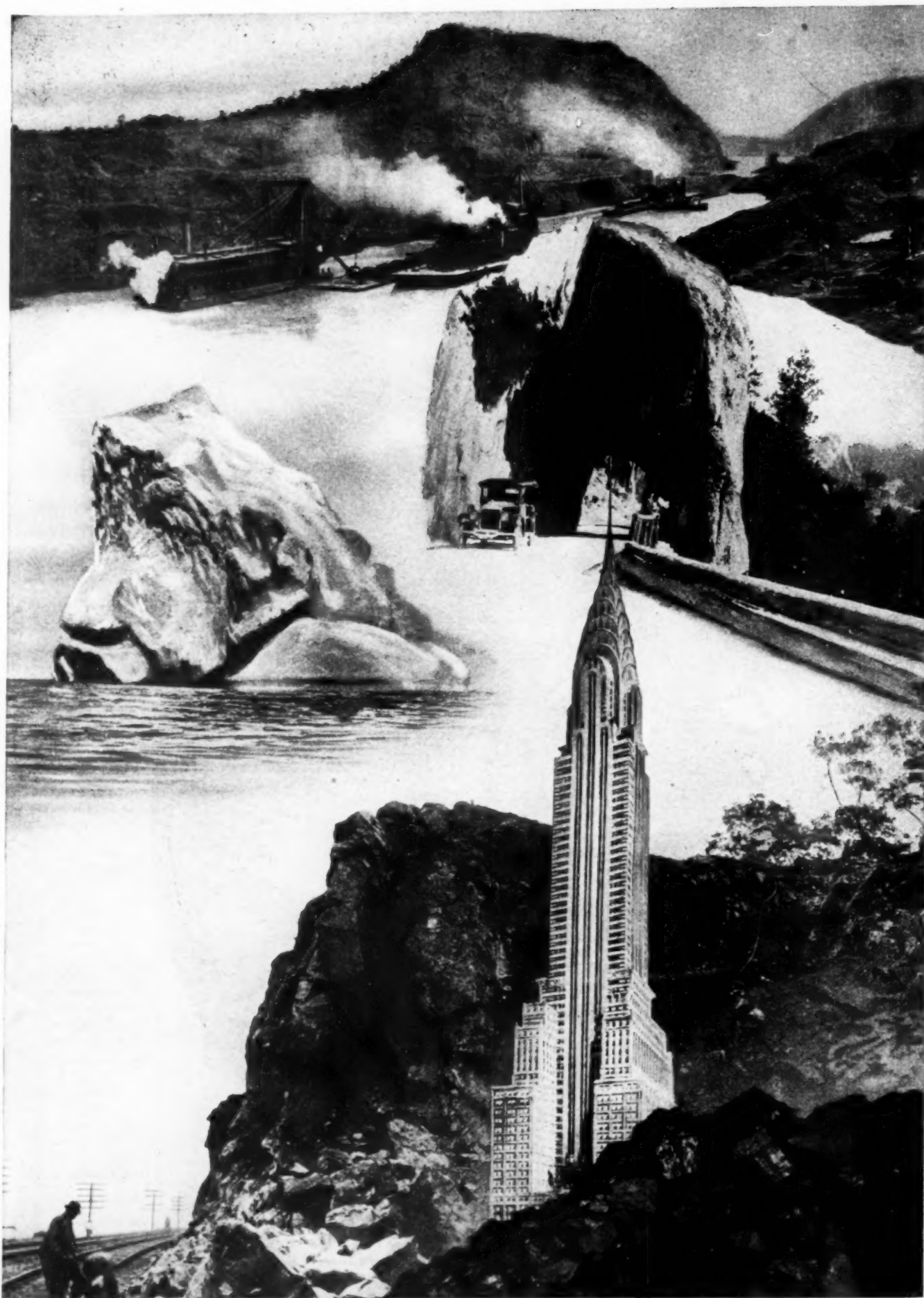
The world's largest exclusive builders of gasoline, oil burning
and electric powered shovels, cranes and draglines

1733 Steger Building

28 East Jackson Boulevard
Chicago, Illinois, U. S. A.

MR10-9Gray

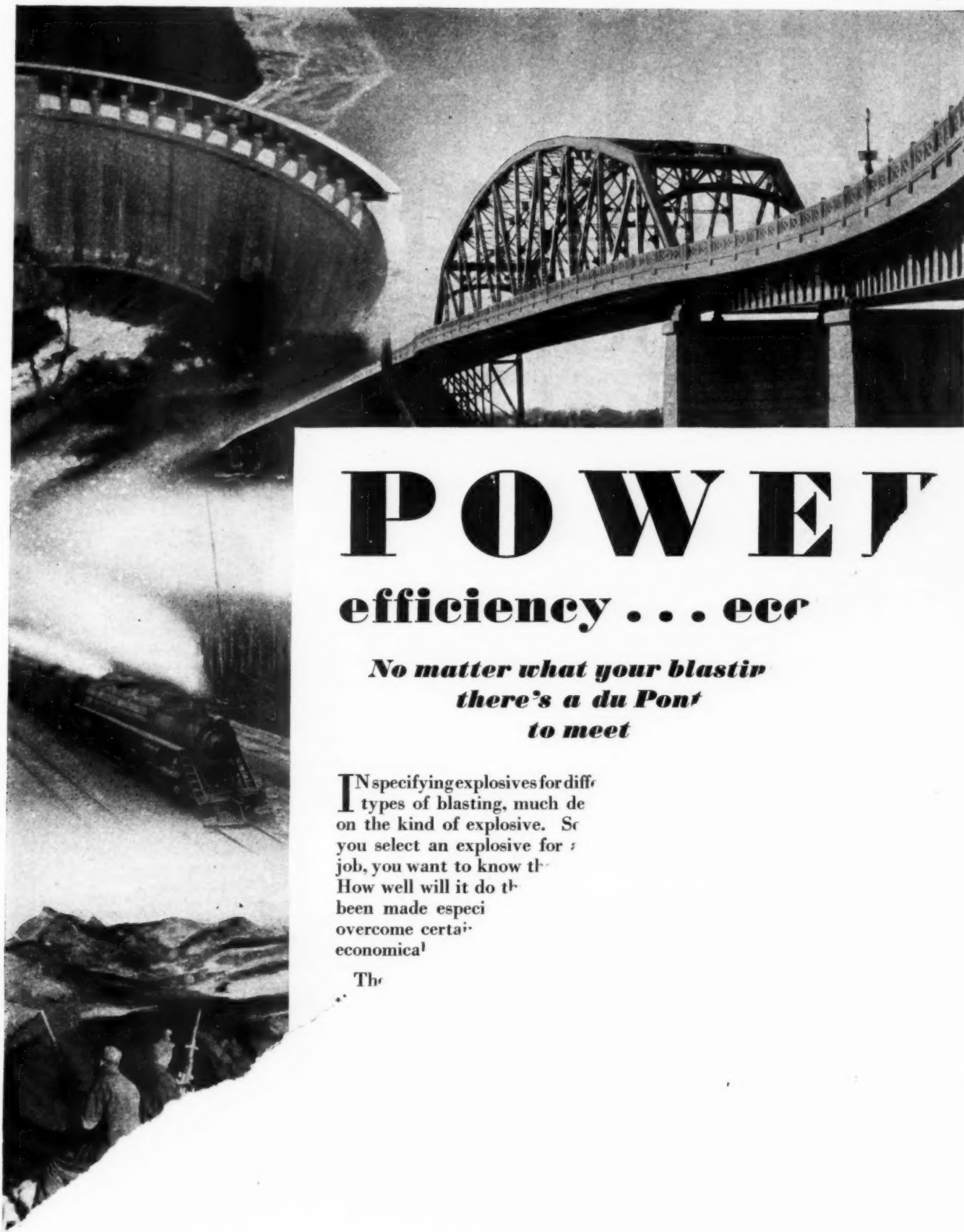
NORTHWEST



E. I. DU PONT DE NEMOURS & CO., INC.

Explosives Department

Wilmington, Delaware



POWER

efficiency . . . etc

*No matter what your blasting
there's a du Pont
to meet*

IN specifying explosives for different types of blasting, much depends on the kind of explosive. So when you select an explosive for a job, you want to know the facts. How well will it do the job? How much has been made especially to overcome certain conditions? Economical?

The

TENNESSEE Structural Steel



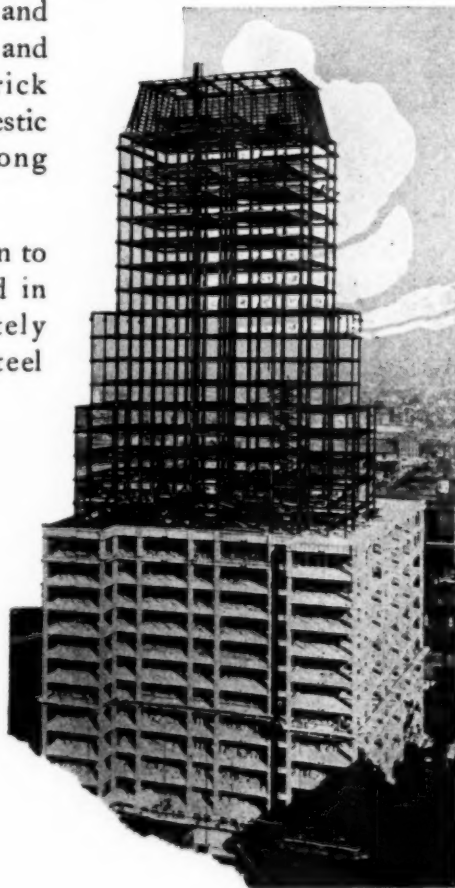
In Tennessee's tallest Building



IMPOSING in size, handsomely and symmetrically proportioned, and modern to the last detail, the Sterick Building, overlooking the majestic Mississippi, ranks first among Tennessee's tall buildings.

Naturally, this most recent addition to the skyline of Memphis is framed in Structural Steel and, appropriately, Tennessee Structural Steel is selected by the fabricators.

Engineers, architects, engineers, fabricators, erectors are unanimous in recognizing the advantages of Structural Steel as a



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WITH YOUNGSTOWN, the customer's needs are always paramount. To meet them, every member of The Youngstown Sheet and Tube Company's entire organization will exert every effort—and red tape will be unhesitatingly severed.

When you come to the Youngstown Sheet and Tube Company for your steel requirements, whether sheets, pipe, conduit, bars, wire, or nails, you can be sure of uniform top quality and a service that will more than meet your expectations.

THE YOUNGSTOWN SHEET & TUBE COMPANY

One of the oldest manufacturers of copper-steel, under the well-known and established trade name "Copperoid"

General Offices—YOUNGSTOWN, OHIO

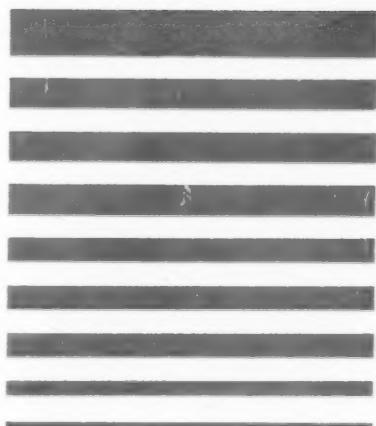
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YOUNGSTOWN

"GALVANIZED SHEETS PROTECT"

"SAVE WITH STEEL"



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A new
convenience
for the public and
an achievement in
BRIDGE DESIGN
FABRICATION
and **ERECTION**

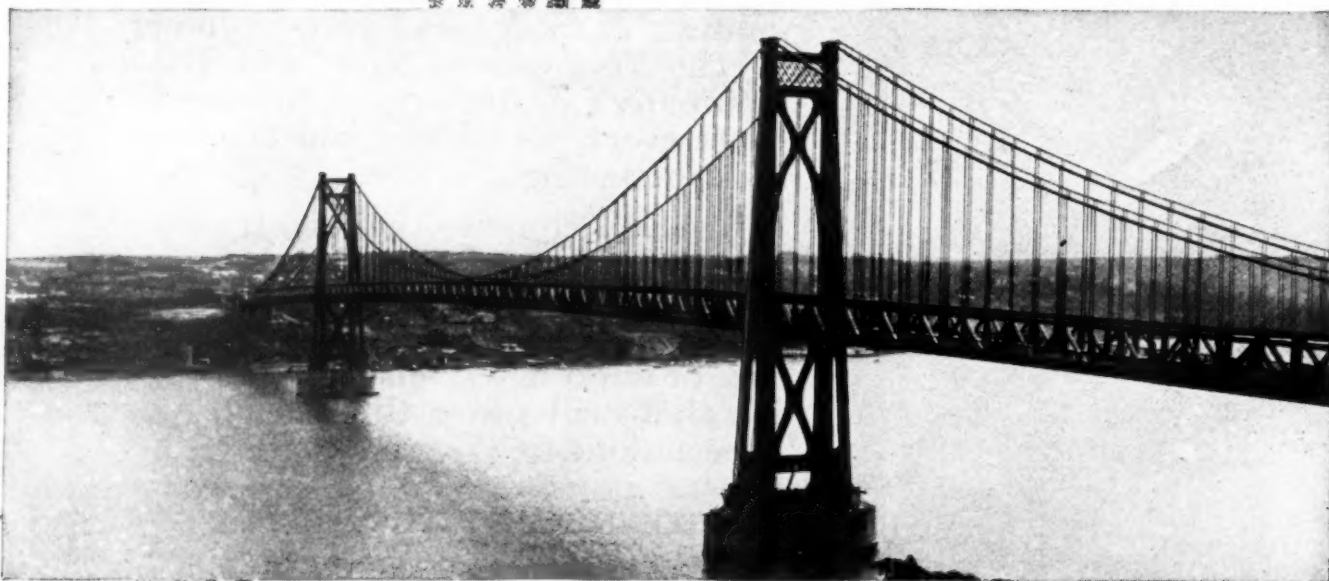


Photo by
Keystone

Mid-Hudson Bridge, Poughkeepsie, N. Y.—The People of the State of New York—Opened for traffic, Aug. 25, 1930
Frederick Stuart Greene, Superintendent, Department of Public Works, State of New York
Modjeski & Moran, Consulting Engineers

The main span of 1500 feet between centers of towers 315 feet high above water level, with a clearance at the center of 135 feet above mean high tide is the sixth longest suspension span in the world.

On either side of the main span is a 750 feet span, making total length of structure 3000 feet between anchorages, —with a three lane roadway, 30 feet wide, and two sidewalks.

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Subsidiary of United States Steel Corporation

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Manufacturers of Steel Structures of all classes particularly
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THE TALL TREE HAS
A STRONG TRUNK—
OTHERWISE IT WOULD
NOT GROW TO BE
TALL

Top: Telephone Building, Atlanta, Ga. Marye, Alger & Vinour,
Archts.; W. C. Spiker & Co., Engrs.; Barge-Thompson Co.,
General Contractors, all of Atlanta.

Upper Center: Reynolds Building, Winston-Salem, N. C.
Shreve & Lamb, New York, Archts.; James Baird Co.,
New York, Gen'l Contrs.

Lower Center: Sterick Building, Memphis, Tenn. Wyatt
C. Hedrick, Fort Worth, Texas, Architect.

Bottom: Smith-Young Tower Building, San Antonio,
Texas. W. E. Simpson Co., San Antonio, Engi-
neers, McKenzie Construction Co., San Antonio
General Contractors.

FABRICATED
Structural
Steel is the
trunk of the mod-
ern skyscraper.
Without the
strength and com-
pactness of steel the
great building heights
of today would not be
possible.

Over a period of years we
have designed, manufactured
and erected the steelwork
for a great number of tall
buildings from Virginia to Cali-
fornia. The four shown here are
recent and typical. But we are
proficient not just in skyscrapers or
big bridges. We do lots of small,
simple work and an endless variety of
small, intricate, exacting fabrication.
Large or small, all orders receive the
same careful attention and handling. Let
us quote you prices and deliveries on your
work.

VIRGINIA BRIDGE & IRON CO.
Roanoke Birmingham Memphis Atlanta New Orleans
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VIRGINIA BRIDGE
STEEL STRUCTURES



We comb the country for this scarce and costly metal!

TO the eye... merely scrap... an unsightly, tangled mass of metal. Yet we have to shop the country over to find it! It is one of the several materials used in making acid steel for Roebling "Blue Center" Steel Wire Rope... and is the purest low phosphorus melting stock obtainable... scarce... expensive.

We spend a lot of time searching for this costly metal... and in analyzing it. We also exercise an extraordinary

amount of care in selecting other melting stock... the purest of acid open hearth pig, of ore, and of fuel... likewise scarce and expensive ingredients.

It takes more time and patience... this old-fashioned thoroughness... this close attention to details. But it produces Roebling Wire Rope!

JOHN A. ROEBLING'S SONS COMPANY

WIRE • WIRE ROPE • WELDING WIRE • FLAT WIRE
COPPER AND INSULATED WIRES AND CABLES
TRENTON, N. J. *Branches in Principal Cities*

ROEBLING



"BLUE CENTER"
STEEL

WIRE ROPE



TESTED IN THE
FIELD AND FULLY
APPROVED

Almost two thousand miles of Republic Electric Weld Pipe have been installed during the last six months. Service conditions of every kind have been encountered—in gathering lines—in long pipe lines—in soils of varying characters—in construction work—in all parts of the country. Joints have been gas welded—electric welded—screw coupled—special coupled. Records have been kept on every job, and what are the results?

Not a single leak—not a defect—not a failure—at welds or anywhere in the pipe wall.

Customer satisfaction has been reflected in orders and repeat orders, in more business than the first Republic mill could produce. Now a larger mill is in production on sizes 4 to 16 inch, bringing increased output of this mechanically perfect pipe.

REPUBLIC STEEL CORPORATION

GENERAL OFFICES: YOUNGSTOWN, OHIO

REPUBLIC

ELECTRIC WELD

MADE BY A NEW PROCESS
CONTROLLED EXCLUSIVELY BY
REPUBLIC STEEL CORPORATION
YOUNGSTOWN, OHIO

PIPE



HAMMOND

STEEL STACK DESIGN

*Withstands Wind Pressure
of 175 MILES PER HOUR*

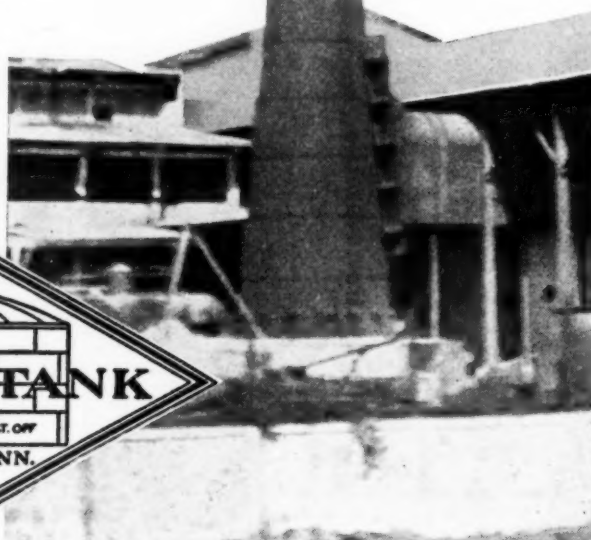


Self Supporting
Steel Stack
11 ft. 6 in. Dia.,
200 ft. High
Erected at
Central Coloso,
Porto Rico.

Manufacturers
of
Steel Tanks
Self Supporting
Steel Stacks
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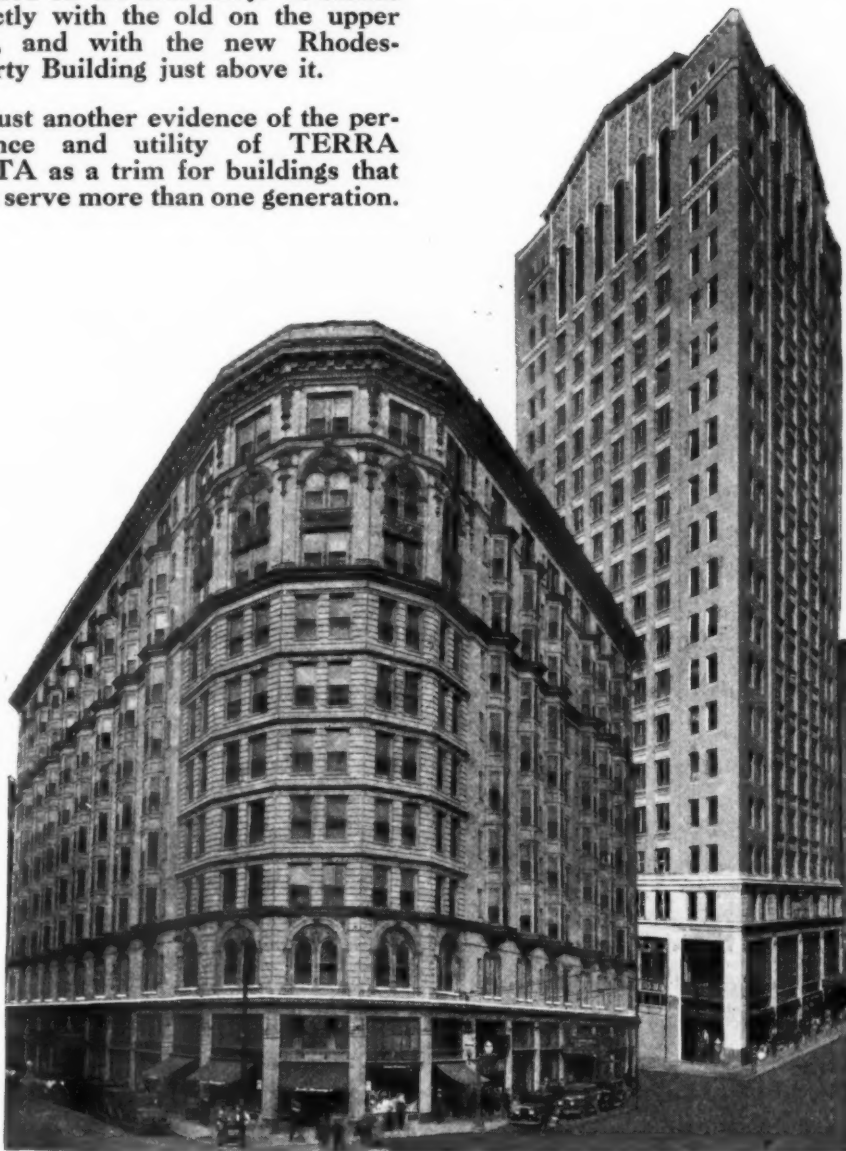


For Buildings of Permanence

—use TERRA COTTA

THE adaptability of TERRA COTTA is strikingly shown by its use on the remodeled Piedmont Hotel and the new Rhodes-Haverty Building. The Piedmont, one of Atlanta's best known hotels, nearly thirty years old, has new TERRA COTTA on the first story. It blends perfectly with the old on the upper floors, and with the new Rhodes-Haverty Building just above it.

It is just another evidence of the permanence and utility of TERRA COTTA as a trim for buildings that are to serve more than one generation.



Pringle & Smith were Architects and Southern Ferro Concrete Co. Builders for both projects.

Atlanta Terra Cotta Company

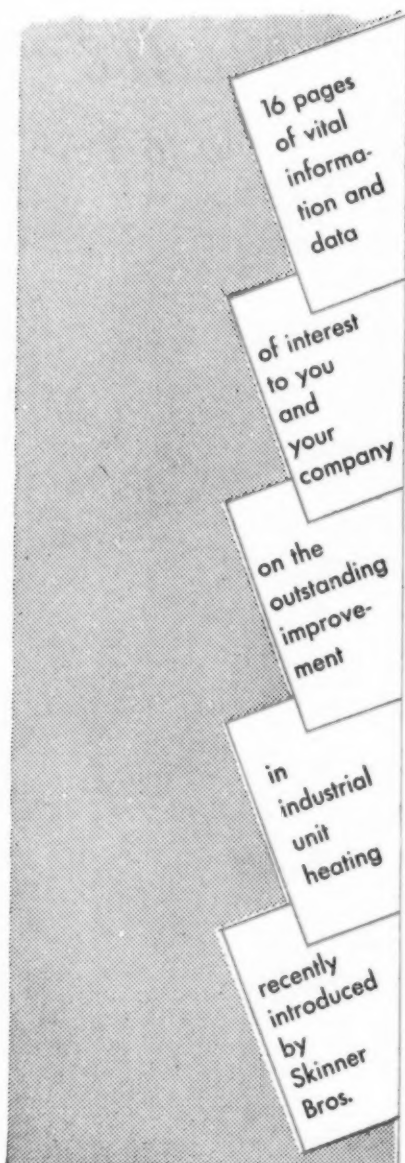
Glenn Building

Atlanta, Georgia

Factory at East Point, Georgia

Southern Factory of
Atlantic Terra Cotta Company
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New York

Southwestern Office
A. P. Clark, District Manager
Praetorian Building
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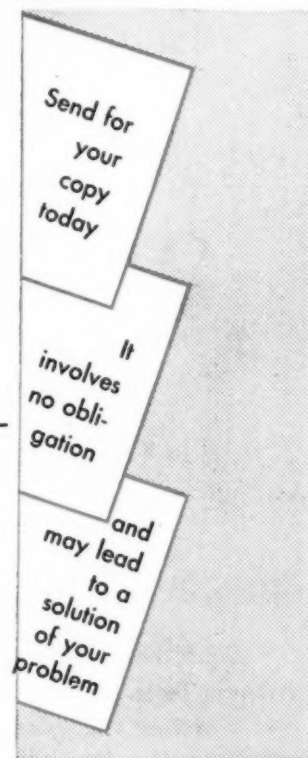
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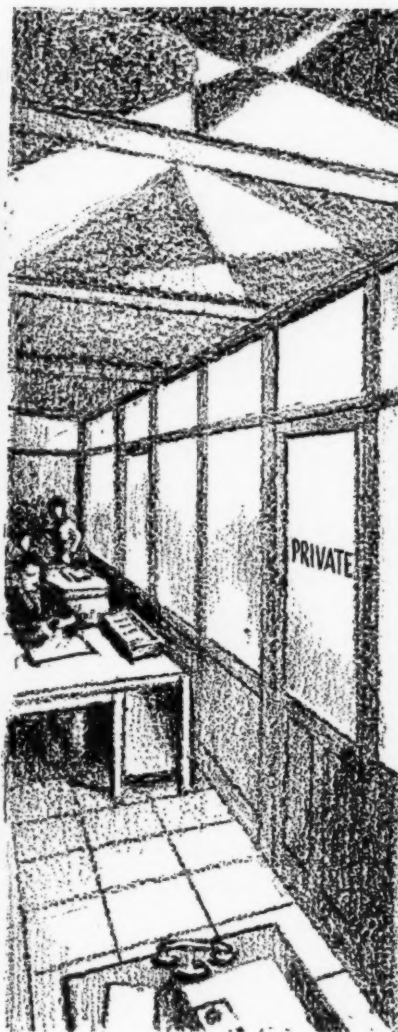
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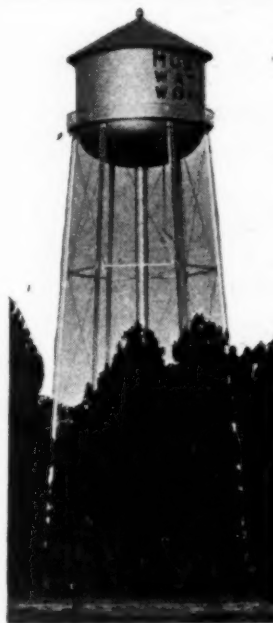
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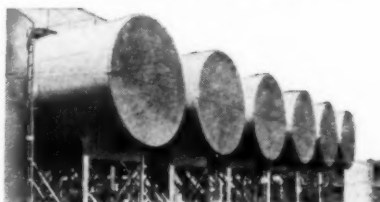
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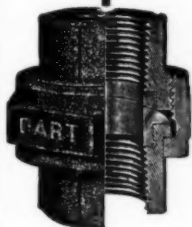
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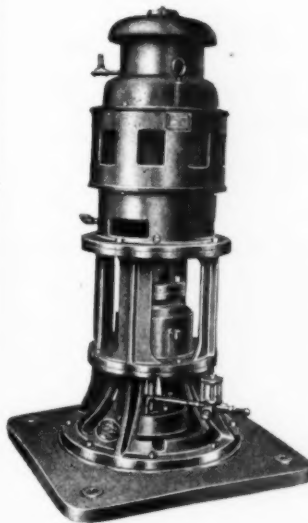
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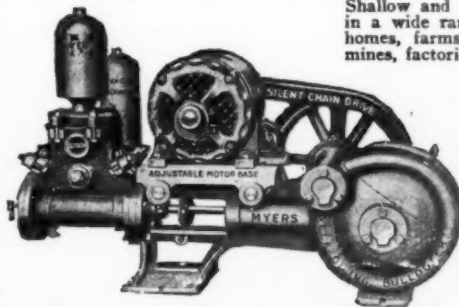
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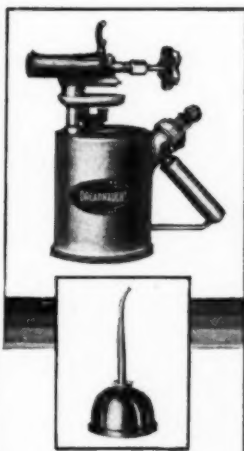
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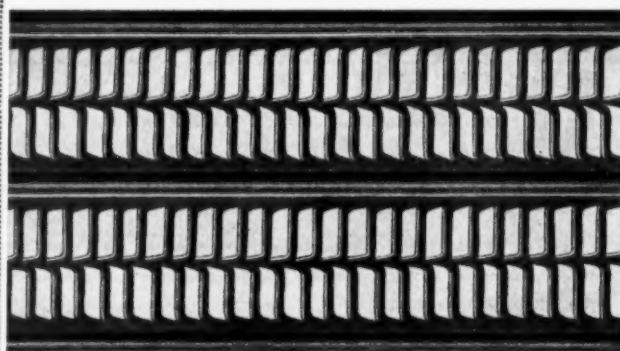
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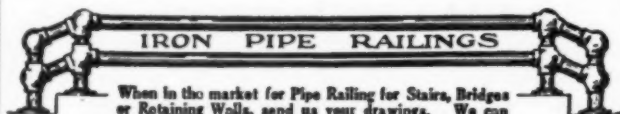
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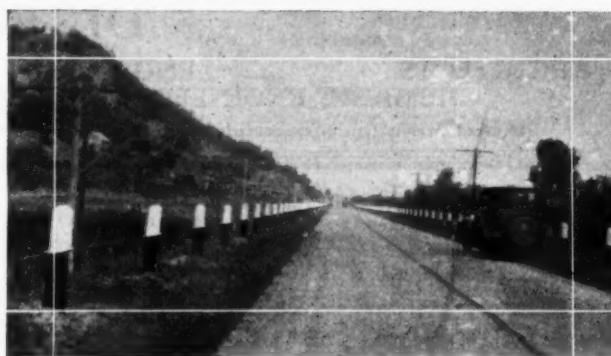
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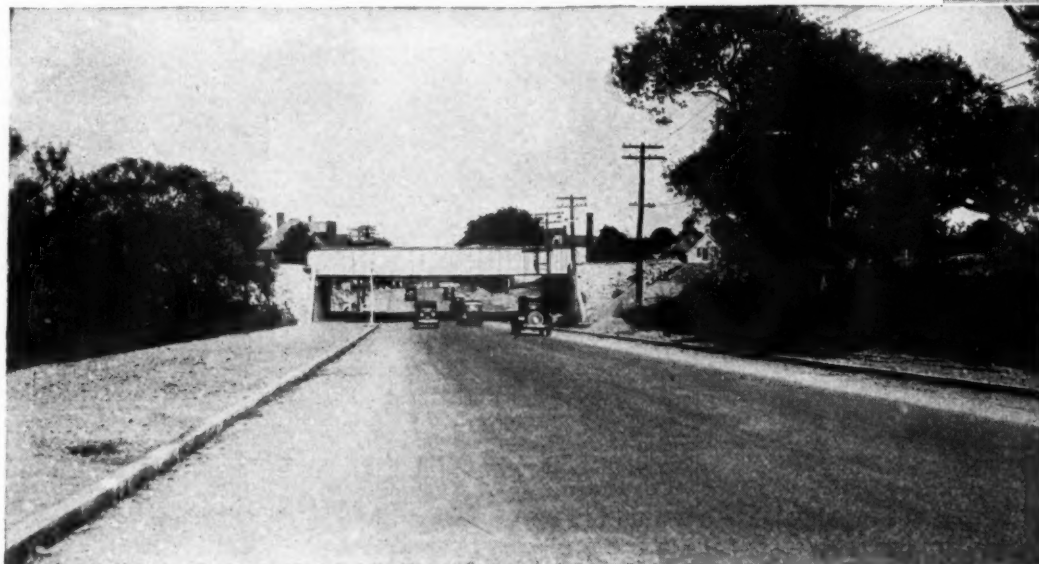
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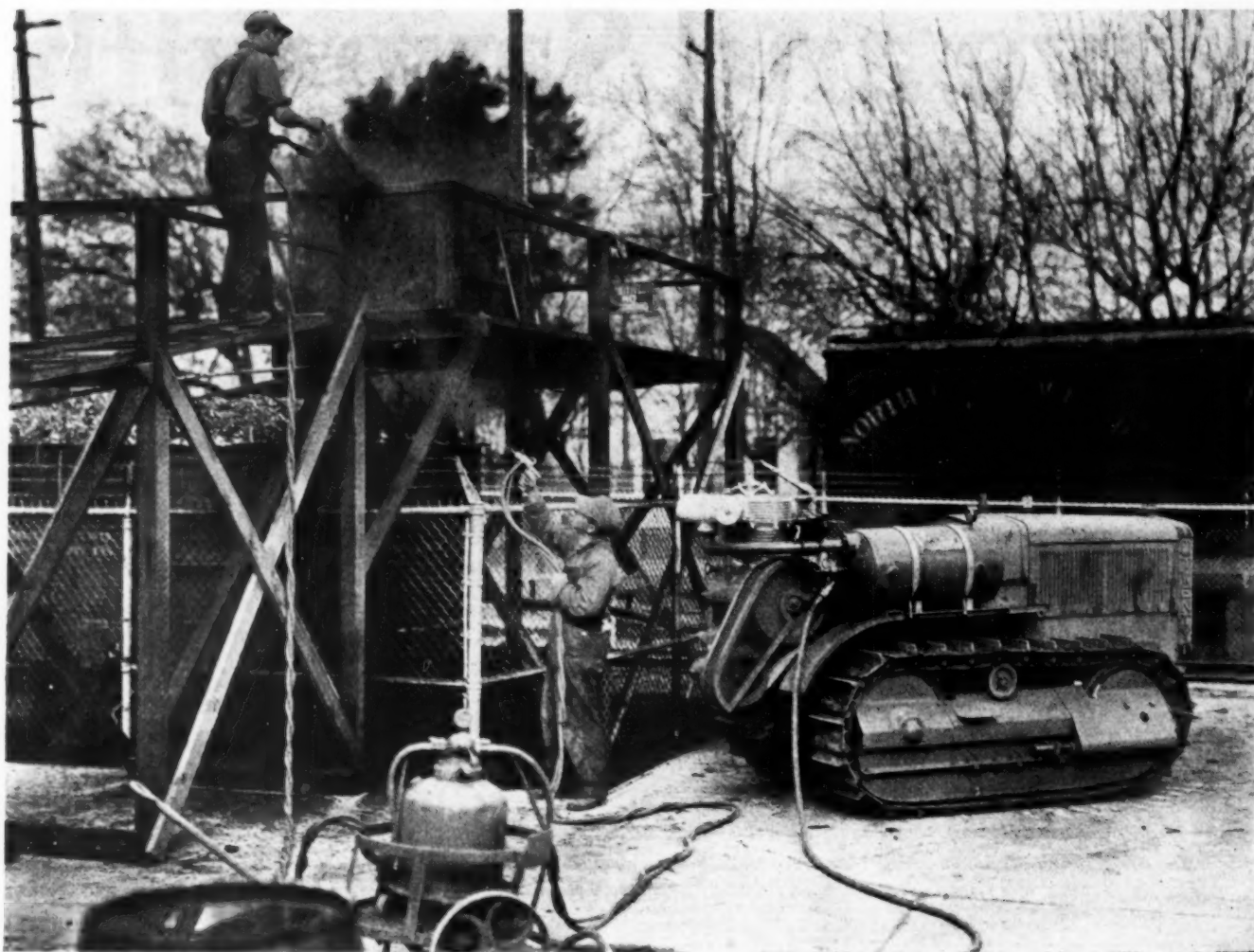
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Baltimore, Md., October 9, 1930

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MANUFACTURERS RECORD

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Manufacturers Record

Reg. U. S. Pat. Office

Devoted to the Upbuilding of the Nation Through the Development
of the South and Southwest as the Nation's Greatest Material Asset

Vol. XCVIII No. 15 }
Weekly }

BALTIMORE, OCTOBER 9, 1930

{ Single Copies, 20 Cents.
\$6.50 a Year. }

Greater Attention Centered on Local Products for Local Requirements

ONE phase of business readjustment which is steadily becoming more pronounced is found in the Made-at-home and Buy-at-home movements of various types now being promoted in many parts of the South. In the main, these movements are directed toward local production and supply of food and feed-stuffs and they reflect a distribution trend which may have a far-reaching effect. Several states have inaugurated or are planning to start Live-at-Home campaigns.

North Carolina has been conducting a successful Made-in-Carolina campaign, emphasis being placed on the large quantity of agricultural commodities brought into the State from outside. Elsewhere in this issue is presented an analysis of the economic and industrial structure of North Carolina in relation to this campaign, and in it may be found some suggestion of value to other Southern states.

This section, because of its agricultural advantages and its climate and soil, is able to raise every variety of food and feed crops. That the South has in the past devoted much of its energies to production of cotton or tobacco or sugar cane growing, or other principal cash-crop of a particular region, is clearly recognized as an uneconomic policy, distinctly detrimental to a well-rounded development. With the growth of a diversified agriculture, including livestock raising and the production of livestock products, there is an opportunity to create food processing and preserving plants which will augment the industrial development, offering employment to factory labor and at the same time supplying packed and canned food products for local consumption. Progress in this direction is being made through the establishment of such plants in many parts of the South.

Likewise, carrying the idea further, other factories utilizing Southern raw materials in the production of semi-manufactures can further supplement industrial development by establishing plants for production of finished goods. The Southern textile industry has been handicapped because of its tardiness in

diversifying its output and in developing factories turning out finished products from finished fabrics.

A private interest, with headquarters at Charlotte, has been carrying on a nationwide advertising campaign directed toward the establishment of factories in the Carolinas. Responses during the first ten days of September were larger than for the entire month of August, with a total of 70 new industries seeking information about the section with a view to establishing plants. The advertisements feature opportunities that exist in the Piedmont Carolinas, not alone because of manufacturing advantages in raw materials, climate, labor, etc., but because of local demand for commodities of all kinds. In one advertisement, "Bring Factories to the Piedmont Carolinas," it was shown that approximately 50 packing plants of average capacity would be required to supply Carolina markets with fresh and preserved meats and meat products, whereas there are only 12 such plants in the two Carolinas, these being chiefly killing establishments that scarcely could be classed as packing houses. It was also stressed that the annual freight bill on shipments of meat and meat products into the Carolinas was \$5,000,000. Also, it was reported that 82 shirt factories, 20 leather goods manufactures, 100 canneries and 250 manufactories of ladies clothing would be required to supply the home demand. It was emphasized that there now exist opportunities for 542 average-size factories in that section, including, in addition to those mentioned, machinery, canned goods, confectionery, clay products, aluminum ware, wood products, window shades, brooms, shoes, brushes, soap, roofing, disinfectants and paint and paper products.

While South Carolina has made greater progress in the manufacture of finished fabrics than other Southern states it has not advanced its production of miscellaneous manufacturing or the production of food products other than in a small area devoted to early spring vegetables. The State, however, some months ago began to make known the discovery of the high iodine content of its vegetables and fruits. Based on that discovery, there was inaugurated a

movement for establishment of canning plants to supply South Carolina vegetables both locally and to remote parts of the country when the State's fresh vegetables were no longer available.

Arkansas has been making a survey of the sale of commodities within its borders, bringing out some interesting facts as to the ability of Arkansas producers to supply local demand. The Arkansas Chamber of Commerce asserts that nearly every commodity used by the people of the State is manufactured and can be bought in the State.

The Nashville Banner, referring to the "Live-at-Home" movement under way in Arkansas, believes that Tennessee can profit in a like manner. "Put Tennessee Farm and Factory First" is the slogan the Banner offers. Citing a number of industries fully capable of supplying local requirements if finishing plants were established, it is emphasized that the canning industry of Tennessee and the South has not been adequately developed and that Tennessee and Southern manufacturers have not made the organized efforts to have their wares accepted by local buyers.

In Florida, a public utility company has been doing some constructive advertising calling attention to the State's resources and urging greater use of Florida grown and made products. Likewise, the citrus industry of Florida is awakening to the tremendous value of advertising as shown in California's success in the wide distribution of its products. Not only are the fruit and packing house exchanges endeavoring to stimulate demand for Florida products, but the State during the past year has made great progress in establishment of citrus canning plants, and with proper advertising this newest Southern industry should grow and prosper. Last year Florida produced 300,000 cases of canned grapefruit and this season's requirements are now estimated at about double last year's output. Should the grapefruit crop of Florida be 9,000,000 boxes, it is expected that about one-third the crop will be of cannery grade, which includes smaller sizes and off-color fruit that does not appeal to the fresh fruit trade. One large cannery under construction in the central part of the State expects to pack about 150,000 cases of canned grapefruit and grapefruit juice annually. This illustrates the size of some of the plants in operation. It is predicted that future demand for canned grapefruit will equal the present consuming demand for Hawaiian pineapple which is about 10,000,000 cases a year.

The Georgia State Chamber of Commerce has under way a movement to develop more profitably the resources and business of the State, endeavoring to form county co-operative chambers of commerce all over the State. The Atlanta Constitution, in commending the proposed state-wide co-operative plan, declares:

"We have in Georgia everything desirable to make it a magnet for population, enterprise, agricultural plenty and prosperity, and a playground for the recreation-seeking tourist second to none on the continent. All these monuments of state resources and possible progress are known to us who

live and labor here, but they must be demonstrated to observers and made fully known to the nation.

"No movement of our people since the revival from the reconstruction era has held forth greater realizable possibilities than this one to coordinate the state-promotion spirits of the Georgia people."

In Mississippi and Texas, milk products plants have been established by nationally known concerns.

Thus in widely separated parts of the South constructive movements are under way which clearly indicate a significant trend in the re-adjustments of business and distribution. States and communities have been asking themselves some searching questions. Out of it all they are evolving plans for more complete utilization of resources and more extensive cultivation of home markets by local producers. Naturally, no one state can supply all its material needs, but it is obvious that many states can with profit diversify and develop for local consumption many products which are now made elsewhere and in doing so afford better service and at the same time create employment for local people.

Money for Good Roads Is Seldom Wasted

THE question, Why waste more money on gravel roads? has recently engaged the attention of many papers in Alabama and appears to presuppose that any money thus spent is automatically wasted. This is not a reasonable premise. The upkeep of gravel roads in Alabama is estimated by officials at \$1000 a mile, presumably per year, and even then it appears such roads often become rough and broken.

In some states, however, the gravel road is found to be an excellent expedient especially for secondary and minor highways, or until a concrete surface can be installed. In other instances it is used as a permanent roadway, or as a base for a permanent roadway in which case the cost of grading and drainage is saved. Obviously, the substantial character of the gravel road depends largely on the nature of the soil and on other factors, and it is possible that the ground in many parts of Alabama is not suitable for roads of this type.

Money spent on good roads is never wasted, provided the expenditure be honestly and economically administered. In terms of cash outlay, \$1000 a year for repair and maintenance may seem high to the taxpayers who provide it, but in providing usable highways until such times as hardsurface roads can be laid it is a sound investment.

Alabama has \$4,083,000 standing to its credit in the United States Treasury on which it may draw at the rate of \$15,000 a mile as promptly as it builds roads acceptable to the Government. Four million dollars will aid in building a very helpful mileage of hardsurface roads. With \$26,250,000 in Government money immediately available for the 16 Southern States, it would seem that the problem of gravel roads should not prove a serious one for any great length of time.

Richard H. Edmonds

WITH profound sorrow we announce the death of Richard H. Edmonds, who started the MANUFACTURERS RECORD in 1882 and had been its editor for more than 45 years. He was born at Norfolk, Va., October 11, 1857. His death, after a prolonged illness, occurred at Baltimore on October 4, as this issue was going to press. Since early manhood his life had been devoted to Southern development. While never of robust health, his energy was tremendous and he gave it all to his chosen work. When he started his business career there were few outside of the South who believed in its possibilities for growth. Skeptics were many, but Richard H. Edmonds never swerved from an unalterable faith in the great future of the Southern states. His love for the South assumed almost a religious fervor. His knowledge of its resources and his unflagging efforts to direct the attention of the rest of the world to what the South possesses won for him the respect of business men everywhere. He was honored throughout the South, the nation and the world.

It was noticeable two years ago that his health had begun to fail and for the better part of the last year he was unable to do any writing. Six months ago he gave up all activity and disposed of his interest in the MANUFACTURERS RECORD to his associates, some of whom had been with him for more than forty years. These associates considered it a privilege while he lived to carry his name at the masthead as the honored editor of the publication.

Richard H. Edmonds' work was his life and he counted neither time nor strength in doing it. He had planned definitely in the arrangement of this organization for the time when his activity should be lessened, and he was happy in the knowledge that the MANUFACTURERS RECORD would never falter in its championship of the South, but that its personnel would be able to carry on with undiminished vigor the effort to which he had given his best years.

This has been a singularly happy business family. The gentleness, the influence, the guidance of Richard H. Edmonds will always be present in its affairs.

The following extract from an article written by Thornwell Haynes appeared several years ago in the Charlotte Observer and the Asheville Citizen, under the title, "The Story of Interpreter of the South:"

"The world's greatest benefactors are its interpreters!

"Perhaps no one has loved his native Southland more than has this friend of yours and mine—Richard H. Edmonds. To him, in a sense, there is no North and South; but to him,

as to our beloved Aycock, in a higher, nobler sense, there is a South!

"Some carve greatness with a sword, as did Alexander; some with a pen, as did Virgil; others by means of the spoken word, as did Patrick Henry; and still others with a machine, as did the Virginian, Cyrus H. McCormick. Richard H. Edmonds, of Baltimore, carved his with a magazine—the MANUFACTURERS RECORD. No publication of the world of art, no periodical in the religious, none in the economical, political or educational world has more effectually served its constituents than has the MANUFACTURERS RECORD served the cause of the South and its varied interests."

Richard H. Edmonds has passed on, but his work will live.

The Danville Strike

THE textile strike at Danville, Virginia, claims serious thought not alone because of the outstanding importance of the Riverside and Dan River Cotton Mills, but on account of the fact that the employees of this great enterprise, numbering more than 4000, are supposed to have regulated their own affairs at the mill and to a great extent decided conditions under which they worked. Perhaps these conditions were not wholly agreeable, but at any rate under the "Industrial Democracy" plan under which they worked they were certainly not in ignorance of the effect of the textile depression on profitable operation of the mills.

Press reports give as the main reason for the strike the refusal of the mill management to recognize or treat with outside union representatives. Without taking sides in the controversy, an observer would naturally ask why, of all times, the present was selected for a strike. The condition of industry does not warrant the belief that it is a good time for people to be out of work, if there ever is a good time. With winter coming on, it is quite possible there may be suffering among the families of employees before the affair is over. It would seem there has been some misguidance of judgment in this respect at least.

Granting that save for the greed of capital—and we rather think that came first—there would never have been guilds or unions, the fact is too well known to employers to admit of any forgetfulness when a strike is called that union labor has unfortunately, in many instances, abused its power and adopted unfair tactics through outside radical leadership in handling their affairs. Employers remember these things and because of them are averse to dealing with men who seem to fatten on others' misfortunes.

Granting the right of labor to ask for collective bargaining; granting the right of labor to join what union it pleases, surely there is a co-equal right for the man who prefers to sell his labor outside of a union to whomever he pleases and at whatever price he pleases to do so. So that if there is picketing it should be peaceful, and admittance to the mill should not be denied men who prefer to go there to work in order that their families may have things to eat and clothes to wear.

Valuation of Southern Construction Mounts to \$750,000,000 for First Nine Months of 1930

Surpasses Totals for Similar Periods of Past Years—
September Activity Above Same Month Last Year

CONTRACTS awarded for building, industrial and construction projects during the first nine months of 1930 in the 16 Southern states, as compiled from reports in the DAILY CONSTRUCTION BULLETIN and the construction columns of the MANUFACTURERS RECORD, show a total of \$749,140,000, a figure which is more than the total for any similar period of previous years on record and within \$30,000,000 of the value of contracts let during the entire year 1929. Statistics at the moment are unavailable for the rest of the country's awards for construction up to and including September, but it is understood that the month of August showed a sharp decline.

During August, the South shared in this slowing up movement, with contracts awarded amounting to \$61,175,000 as compared with the \$87,675,500 total for the same month last year. In September, however, the value of contracts let was \$46,738,500, an increase of almost \$700,000 over September, 1929. This gain tends to strengthen the views of those economists who believe that August marked the low point of the present business depression. One business analyst even contends that profits for 1930 will compare favorably with the exceptionally good year of 1926. In that year, contracts awarded in the South amounted to \$891,543,500, while the nine months' total was \$736,164,500 as compared with the encouraging figure of \$749,140,000 for the first nine months of 1930. This nine-months figure compares favorably also with yearly totals of \$774,885,500 for 1927, \$806,674,000 for 1928 and \$779,981,000 for 1929. For these three years the nine-month totals were \$617,780,000, \$625,515,000 and \$655,278,000, respectively, none of which even approaches the value of such construction in the South in 1930.

Several Monthly Records Set

This Year

To recount the 1930 monthly valuation totals of building and construction work in the South brings out the fact that June's total of \$226,168,500 was the highest on record, since it involved several major gas and oil pipe line extensions. The July aggregate of \$103,549,500 was the third highest, being sur-

passed only by the \$107,097,500 total for April of 1929. February, 1930, in which month the country's construction activity fell off considerably, also showed for the South a total of \$75,034,500 as compared with the 1929 February total of \$61,556,500; while March, 1930, with its total awards of \$69,753,000, surpassed the 1929 March figure of \$53,707,500. The record figure for June, as stated, is attributed to the award of contracts for three large

pipe lines in the Southwest. July's unusually high figure, however, reveals no particular type of construction as an inflating agent, and thus indicates a substantial increase for all lines of construction endeavor throughout the South.

Examination of the tabulation of various types of construction as grouped by the MANUFACTURERS RECORD discloses that miscellaneous construction—the classification indicating such projects as garages, bus terminals, various kinds of industrial plants, piers, and similar work—leads for the nine months with a total of \$324,912,500, the road classification being second with a valuation of \$206,516,500. School construction totaling \$51,599,500 ranks third, and to sewers and to municipal, county, State and Federal Government buildings go fourth and fifth places with totals of \$33,825,500 and \$30,677,500, respectively. Totals for other classifications are: Dwellings, \$28,356,500; apartment houses and hotels, \$26,830,000; bank and office buildings, \$23,723,000; store buildings, \$10,291,000; church buildings, \$9,694,500, and association and fraternal, \$2,713,500. Proposed work for the period totaled \$886,248,000.

SOUTHERN ACTIVITY IN BUILDING AND INDUSTRY, SEPTEMBER, 1930.

	Contracts awarded	Contracts to be awarded
Apartment houses and hotels.....	\$1,176,000	\$1,048,000
Association and fraternal buildings....	21,000	450,000
Bank and office buildings.....	1,885,000	2,995,000
Church buildings....	856,500	1,015,000
City, county, Government and state buildings.....	5,290,500	1,283,500
Dwellings.....	1,833,000	1,033,000
Miscellaneous.....	5,795,000	26,131,000
Road, paving and bridge projects....	22,464,500	11,246,000
School buildings....	4,295,000	5,419,000
Sewers, drainage and waterworks.....	2,684,000	6,234,500
Store buildings.....	438,000	4,844,000
Totals.....	\$46,738,500	\$61,699,000

CONTRACTS AWARDED AND PROPOSED, BY CLASSIFICATION, FOR NINE MONTHS, 1930.

	Awarded	Proposed
Apartment houses and hotels.....	\$26,830,000	\$41,143,500
Association and fraternal buildings..	2,713,500	7,720,000
Bank and office buildings.....	23,723,000	18,119,000
Church buildings..	9,694,500	12,369,000
City, county, Government and State buildings..	30,677,500	52,503,500
Dwellings.....	28,356,500	15,775,500
Miscellaneous.....	324,912,500	375,955,500
Road, paving and bridge projects..	206,516,500	222,935,500
School buildings....	51,599,500	60,673,500
Sewers, drainage and waterworks.....	33,825,500	65,537,500
Store buildings....	10,291,000	13,515,500
Totals.....	\$749,140,000	\$886,248,000

Nine-month Totals.

1929.....	\$655,278,500
1928.....	625,515,000
1927.....	617,780,500
1926.....	736,164,500

CONTRACTS AWARDED AND PROPOSED, BY MONTHS, FOR 1930.

	Awarded	Proposed
January.....	\$39,149,000	\$81,518,000
February.....	75,340,500	113,339,500
March.....	69,753,000	117,563,000
April.....	52,242,500	101,256,500
May.....	75,023,500	129,561,500
June.....	226,168,500	93,791,500
July.....	103,549,500	118,548,000
August.....	61,175,000	68,971,000
September.....	46,738,500	61,699,000
Total 9 months..	\$749,140,000	\$886,248,000

Road Building Led September Awards

Of September totals for the various groups, the road classification leads with \$22,464,500, thus accounting for almost half the month's aggregate and indicating that advantage is being taken of the Federal Government's allotment of funds for road construction as a measure toward drought relief and employment revival. The miscellaneous classification ranks second with a total of \$5,795,000, the awards for city, county, State and Federal buildings coming third with \$5,290,500 and school buildings taking fourth place with a total of \$4,295,000. Other totals are: Sewers, \$2,684,000; bank and office buildings, \$1,885,000; dwellings, \$1,833,000; apartment houses and hotels, \$1,176,000; church buildings, \$856,500; store buildings, \$438,000, and association and fraternal buildings, \$21,000. The projects on which contracts were yet to be let at the end of September amounted in value to \$61,699,000.

September Industrial Expansion

Listed among various projects proposed and those for which contracts were awarded and on which work was under way, as detailed last month in the DAILY CONSTRUCTION BULLETIN and in the MANUFACTURERS RECORD, were large mileages of roads in South Carolina, Kentucky, West Virginia, Alabama, Missouri, Georgia and Texas. Projects accounting for the rest of the month's valuation total, those projects for which contracts were let and are to be let were numerous and varied and included such activity as the plan of the Ozark Reduction Co. of Pine Bluff, Ark., to construct a hydro-plant on the White, the Buffalo and North Fork rivers to develop 276,000 kilowatt-hours of electricity; the \$2,000,000 natural gas system contemplated by Hays Brummitt, of Chattanooga, Tenn.; and the plan of the Texas and Pacific Railway Co. to build lines in West Texas to link the South Plains and Panhandle country with the transcontinental system, involving an expenditure of over \$13,000,000. Other major projects are listed in the following paragraphs.

A \$1,500,000 cement plant is projected in Mississippi by the newly organized Mississippi Portland Cement Co.; a \$2,000,000 expansion program is planned for the refinery of the Magnolia Petroleum Co.; a \$2,000,000 program is reported for the Houston refinery of the Sinclair Refining Co. Contract was let at Fort Worth by the Texas Ice & Refrigerating Co., for a \$500,000 plant. J. Jean Nord and associates plan erection of a \$500,000 plant at Asheville, N. C., for production of synthetic yarn. The Indian River Sub-Exchange, comprising units of the Florida Citrus Exchange plans a \$750,000 citrus packing, pre-cooling cold storage and canning plant at Fort Pierce, Fla. At Jackson, Miss., \$1,500,000 is to be expended for improvements by the Southern Bell Telephone & Telegraph Co. A \$1,000,000 pipe line is projected from Mobile to Pensacola by the Southern Natural Gas Co., and at Houston, Texas, a \$500,000 expenditure for pipe lines and improvements is announced for the Southern Gas Co.

Public Works Contracts

The City of Knoxville let contract at almost a million dollars for erection of the Henley Street Bridge. A bridge to cost \$750,000 is under construction over the Canadian River at Tascosa, Texas, by the Fort Worth and Denver City Railway, and site has been selected for a \$600,000 bridge at Decatur, Tenn. A low bid of \$996,732 for construction of the Prettyboy water impounding dam was received at Baltimore; plans are under way for a \$600,000 water works

project at Lawton, Okla.; Memphis, Tenn., contemplates a \$3,000,000 bond issue for erecting a new water pumping station; Paducah, Ky., received low bid from a Chicago firm for purchase of \$2,105,000 water works bonds; the city manager of Fort Worth recommended construction of a \$450,000 water works plant. Recommendations were made for a \$6,000,000 program at Kansas City, and for an election on a \$9,391,286 bond issue for public improvements at Oklahoma City. It was proposed to vote on \$1,650,000 waterfront improvement bonds at Corpus Christi, Texas, and a commission was appointed by Perry County, Ky., to issue \$500,000 bonds for a bridge over the Ohio at Hawesville, Ky. Sale of \$2,000,000 special drainage bonds was made by the New Orleans Board of Liquidation.

Building Awards Cover Many Types of Structures

Major buildings under construction throughout the South include: The \$2,000,000 U. S. Marine Hospital at New Orleans; \$2,500,000 Union Station at Oklahoma City; \$2,950,000 post office at Baltimore; \$700,000 nurses home at Baltimore City Hospitals; the \$700,000 Huckins Hotel at Oklahoma City, and the \$750,000 W. W. Orr Doctors Building at Atlanta. Contracts were recently awarded for a \$1,000,000 Senior High School at San Antonio; a \$1,250,000 office building at Dallas for the Dallas Power and Light Co.; the \$652,439 Jefferson County courthouse at Beaumont, Texas, and the \$525,000 officers' quarters at Fort Bragg, N. C. Foundation contract was let for the First National Bank Trust Company's \$3,000,000 building at Oklahoma City.

The major proposed buildings include the \$7,500,000 House of Representatives Office Building, Washington, on which bids are to be opened October 28; the superstructure of the Merchandise Mart at St. Louis; \$2,500,000 Skirvin Hotel, for which plans are being prepared at Oklahoma City; \$2,000,000 sports arena proposed for Baltimore by Maurice Runkle; \$1,000,000 Swiss Plaza apartment hotel planned for San Antonio, and the \$3,000,000 Ramsey Building on which work is to start November 1 at Oklahoma City. A \$500,000 Y. W. C. A. building is planned for Oklahoma City; site is being cleared for a \$900,000 extension to the Federal Building at Richmond; preliminary sketches are under way for a \$700,000 Catholic Shrine at Corpus Christi, Texas; W. Carroll, Beaumont, plans a \$500,000 medical and dental arts building, and bids were received at New Orleans for a \$500,000 high school for girls. The John W. Norton Memorial Infirmary at Louisville, Ky., is having plans completed for a \$500,000 hos-

pital; a low bid of \$632,000 was received for erection of the Federal Building at Tulsa, and the Board of Education requested \$1,000,000 for school improvements at Memphis, Tenn.

The foregoing is a resumé of some of the major projects on which developments were outlined during the month of September. Reports on projects of other months have appeared in previous issues of the MANUFACTURERS RECORD.

\$1,600,000 Federal Building

Miami, Fla.—Closing negotiations for the purchase of a site to erect a new Federal building here, the United States Government has paid \$438,500 to the Dade County School Board for the Central school property. Work is expected to start soon on razing the old school, after which construction of the new building will be pushed. The proposed building, estimated to cost \$1,600,000, will house the postoffice, courthouse, customs house, etc.

American Manganese Convention

Subjects of importance to American industry are to figure prominently in the program of the American Manganese Producers Association at the third annual convention, to be held at the Mayflower Hotel, Washington, November 10 and 11. Among the topics listed are: "The Russian Situation and Effect of the Five Year Dumping Program on Manganese and Other American Industries"; "The World Manganese Situation"; "Possibilities of the Domestic Market," and reports from each of the manganese States. A cordial invitation has been extended by the association to all persons interested in the domestic manganese industry.

Florida Preliminary Taxation Report

From his viewpoint that business methods must be used to determine the finance and taxation system of Florida, Perry G. Wall, chairman of the Florida Citizens Finance and Taxation Committee, has submitted a preliminary report on the tax and finance affairs of the State. All property, Mr. Wall feels, should be assessed by a uniform system and all property should pay its share of the tax burden, according to ability to pay and benefits received. A simple and uniform system of accounts for the State, counties and towns, he adds, also should be set up. The preliminary report is largely devoted to giving the facts of the tax system and public finances, and "the serious situation arising therefrom."

Corroborative Evidence That Southern Business Is Advancing

ENCOURAGING news of business improvement and cheerful forecasts for the future, as reported by chambers of commerce in the South to the MANUFACTURERS RECORD and summarized in the issue of October 2, have been reinforced by further information received later from widely scattered points. Although a few communities complain of continued dullness, they are by no means discouraged.

In trade centers, not only has business improved since mid-summer, but also the merchants are preparing for progressive demand. Cities closely connected with manufacturing industries report both increased activity in the plants and ever-growing inquiries by buyers from other sections. Agricultural centers share in the bettering conditions and express confidence in the future.

As Charles F. Varn, secretary and manager of the United Chambers of Commerce, Anniston, Ala., expresses it:

"Merchants have benefited by impetus in buying. The textile mills continue full operation and the electro-chemical industry is operating on full time. Prospects for the balance of the year look very favorable."

Conditions in Arkansas may be pictured in a report from Little Rock, presented by M. H. Thompson, publicity and research manager of the Chamber of Commerce, who says, in part:

"The opening of the fall season has seen increased retail and wholesale buying. Feed mills report the best business in many seasons. Fur coat sales in department stores are above those of any former season. Radio sales show definite pickup since August. The local branch of a large lumber concern, which expanded to manufacture radio cabinet cases, has held full force throughout the year and recently has taken on an additional contract which will increase output. Automobile servicing and repair shops are doing better. Insurance sales show improvement over last year and are gaining steadily. Business men expect a turn for the better in business conditions nationally, which, of course, will affect conditions locally."

The mention of radio business, fur sales, automobile servicing and insurance in the foregoing is of genuine significance, as showing that the people are beginning to spend some of the money they have been putting into saving banks for some time.

A business bird's eye view of Florida may be gained from a report by the Jacksonville Chamber of Commerce, as set down by James T. Daniels, manager, who says:

"During the past 60 days, there has been a pronounced feeling for the bet-

ter which has been expressed in an increased business. Practically all lines of industry have been affected and at present such firms as John H. Swisher & Sons, cigars; Jax Ginter Company, cigar boxes; Bo-Kay Perfume Company and others continue overtime production. I feel we can safely assume that prospects for the balance of the year are encouraging to the extent of practically assuring continuance of these conditions."

Mr. Daniels further announces early opening of a new \$500,000 plant for the Continental Can Company, and new plants in operation for the Southland Dairy Products Company, Inc.; Freedman-Nicolell Company, women's garments; Hart-Neon Sign Corporation and Herring Ginger Ale Company, with plans completed for three new canneries, to employ 1800 workers.

As an agricultural factor in Florida, Fort Myers reports through Ronald Halgrim, secretary of the Chamber of Commerce, that the new tariff law has inspired more planting. Locally, the new \$750,000 bridge over the Caloosahatchee River at Fort Myers has been completed.

Business is better in Georgia, reports the Atlanta Journal. George M. Rommel, industrial commissioner at Savannah writes the MANUFACTURERS RECORD that retail trade, manufacturing and the printing trades show particular revival. Mr. Rommel tells of the establishment in Savannah of a new asphalt refinery of the Pan-American Petroleum & Transport Company and a roofing plant for Certain-teed Products Corporation, also a new plant for the United Shank & Findings Company, subsidiary of the United Shoe Machinery Corporation. Business in Moultrie, Ga., is decidedly on the upgrade in practically all lines of retail merchandising and feeling is general that business is going to be good this fall, says a special dispatch.

Speaking for the Atlanta area, Frank K. Shaw, secretary of the industrial bureau of the Chamber of Commerce, says in his letter:

"Throughout this section, there has been a slight increase in business during September. It seems that business at last has taken a definite upward trend. All of the principal industries have been affected. The prospects for the balance of the year are for a steady, although very gradual, increase."

In the first six months of this year, it appears, 85 new branch factories, warehouses and sales offices were established in Atlanta, employing about 1275 persons, with estimated total payroll of \$2,026,500.

From Louisville, Ky., W. E. Morrow,

secretary of the Board of Trade, writes:

"The principal lines affected by any improvement have been certain wood-working industries serving the radio trade and agricultural implement manufacturers, who have increased their forces. Business men generally expect business to improve with the fall and winter season but do not believe there will be pronounced acceleration in business until well into 1931."

Conditions in the parishes of Louisiana may be reflected in a report from Secretary S. H. McClary of the Chamber of Commerce of Monroe and West Monroe, "Twin Cities of the Ouachita." In this, it is set forth:

"Business is somewhat better than on August 1. Retail and wholesale lines had felt the depression most and manufacturing plants have continued on full time. Prospects for a good business for the balance of the year are excellent."

Alexandria, in the heart of Louisiana, sends much the same message, from John W. Lewis, Jr., manager of the Chamber of Commerce. Wilson S. Calender, national advertising secretary of the New Orleans Association of Commerce, adds:

"The outlook for the balance of this year is extremely bright. We have a list of 200 new concerns which have begun or expanded operations since January 1, 1929, and 125 national concerns which have manifested definite interest in an idea of establishing investments here. Employment in New Orleans is reported as improving."

The merchants and railroads of southeast Mississippi report some increase in business since August, says T. S. Jackson, secretary of the Hattiesburg Chamber of Commerce. Crops in general are fair, pastures have been good and the cotton crop is about the same as last year.

There has been a decided increase in the business of textile jobbers and manufacturers since the middle of August, says H. C. Smiley, director of research of the Chamber of Commerce of Kansas City, who may be regarded as speaking largely for all Missouri. Further:

"It seems that there are more buyers in the market and they are buying in substantial quantities. Most of these jobbing and manufacturing businesses are very optimistic as to prospects for the balance of the year. Most of our steel fabricating plants have been able to keep abreast of last year's business and we understand that one or two have been able to go ahead by refusing to curtail their activities by going into the market with much greater effort."

Increase in business in North Carolina since August also has been felt. At Asheville, for instance, Fred L. Weede,

manager of the Chamber of Commerce, says:

"One plant here that was shut down at the beginning of the year is now working with half-force. Three other plants have staggered their work. Other plants have been working at practically full capacity, some of them with 24-hour shifts."

To cite the report of Vinson Lackey, publicity secretary of the Tulsa Chamber of Commerce, as a sample of conditions, Oklahoma also is cheerful. There has been an appreciable increase in business and further impetus is expected to develop from the International Petroleum Exposition, which is counted on to draw 150,000 visitors. Tulsa and Oklahoma are "practicing, as well as preaching, optimism."

Besides the benefit of a \$65,000,000 highway program, on which work is soon to begin, South Carolina considers business prospects "promising," says a report from Columbia. The Greenville section shows increase in the building trades and construction work better than normal, says L. M. Glenn, secretary of the Chamber of Commerce of that city.

Indicative of conditions in Tennessee are reports from Memphis and Chattanooga, for instance, the former from C. M. Anderson, executive vice-president of the Chamber of Commerce, and the latter from A. I. Hays, industrial secretary of the Chattanooga Chamber. Wholesale and retail trade has improved, and prospects for the balance of the year are much brighter than for the first part, with "manufacturers and others looking for a considerable uptrend in business."

Brownwood, Harlingen, Laredo, Fort Worth and Denton may be mentioned as typical Texas agricultural and business centers which note improved conditions since August 31 and hope for still better times ere long, while W. V. Crawford, vice-president and general manager of the Waco Chamber of Commerce, adds:

"There has been a slight, to good, increase in business since August, particularly in the dairying industry where production and manufacturing have increased considerably, including a substantial increase in market prices to the farmer. Other lines showing increases are structural steel, textile industry and the wholesale and jobbing trade generally. General prospects for the balance of the year are fair to good."

September has been the record month of this year in building operations in Richmond, says Henry P. Beck, building inspector, and business has improved in many parts of Virginia, as the report from H. E. McCreedy, manager of the industrial department, Chamber of Commerce, Roanoke, indicates. Somewhat in detail, Mr. McCreedy says:

"In the manufacturing line, building materials, cotton garments, tin cans and furniture report improved conditions. In

the merchandising lines, women's wear, hardware, building materials, furniture and automobiles all report September conditions favorable. In several cases, business is reported as being equally as good in August, last, as in the same month last year."

Thus the evidence is accumulating that Southern business as a whole is better, while here and there some communities, as well as individual industries, of course, are lagging behind the expected seasonal trade advance.

WORK SOON ON TWO GOVERNMENT BUILDINGS

Post Office Department Structure to Contain 14,000,000 Cubic Feet—\$3,000,000 to Remodel State, Navy and War Building

Washington, D. C.—Work is expected to begin soon on a new building to be erected in the center of the Triangle here for the United States Post Office Department, for which Delano & Aldrich, New York, are the architects. The structure will be of stone with steel frame, 7 stories and basement, to cover a ground area of 108,000 square feet, and to contain approximately 14,000,000 cubic feet. The easterly facade will be curved to form one side of a large circular plaza, while the westerly facade will also be curved to form a large niche at the termination of the Great Court which will be enclosed by buildings on three sides but open on the easterly side of 14th street opposite the new building for the Department of Commerce. The court will provide recreational park space for workers in the neighboring buildings. Interior finish of the building will be of stone to harmonize with adjoining buildings, with metal window frames and sash and interior doors, while the roof will be finished in slate and tile. The interior will be arranged to accommodate the executive officers and several divisional departments of the Post Office Department and will be equipped with complete sanitary, lighting, heating and ventilating facilities. Construction will be in charge of the Supervising Architect of the Treasury Department.

Plans are also under way to remodel the State, War and Navy Building to conform to the general lines of the Treasury Building, according to an announcement from the Supervising Architect's office. Congress has made \$3,000,000 available for the work, which will also be in charge of the Supervising Architect, who plans to use the sunken gardens on the north half of the building for a basement garage. Waddy B. Wood, Washington, is the architect.

\$52,000,000 TELEPHONE EXPENDITURE

Southwestern Bell Increasing Facilities

St. Louis, Mo.—To provide for an expected gain of 65,000 telephones this year, the Southwestern Bell Telephone Co. is expending \$52,000,000 in Missouri, Arkansas, Oklahoma, Texas and Kansas, according to E. D. Nims, president. This 1930 budget will exceed by approximately \$12,000,000 the amount expended last year for construction. Plans for major items call for long distance underground circuits between St. Louis and Kansas City to cost more than \$11,000,000; long distance offices in St. Louis, Kansas City and Dallas, \$12,500,000; line extensions in exchange with other companies, \$11,000,000, and new telephone instruments, private branch switchboards and repairs, \$9,000,000. Besides these, improvements are constantly being made to existing facilities. A recent improvement is a dial telephone exchange in St. Louis County.

\$1,196,000 to Remodel Kentucky Prison

Frankfort, Ky.—A resolution recently adopted by the State Board of Charities and Corrections, authorizes J. C. Bird, commissioner of public institutions, to remodel the Frankfort prison reformatory, which will include the enlargement and repair of 1200 cells, the installation of running water, sanitation and sewage facilities in each, the construction of a new cell house to accommodate 700 prisoners and for other improvements. The work is estimated to cost \$1,196,670, of which \$660,000 would be expended for the new cell house. The board also authorized the purchase of 2000 acres of land as a site for a proposed prison farm. Churchill & Gilling, Lexington, Ky., are architects for the improvements.

Turpentine and Rosin in Many Industries

Industrial concerns using turpentine and rosin in their products consumed 5,622,695 gallons of turpentine and 1,104,771 barrels of rosin in 1929, according to the Department of Agriculture, there being 13 different industries in which these products are conspicuous. The South produces practically all the domestic turpentine and rosin made.

Consumption in the many industries using the products of naval stores in their manufacturing was as follows, turpentine being given in gallons and rosin in barrels of 500 pounds: Automobiles

and wagons, 100,815 turpentine and 2797 rosin; chemicals and pharmaceuticals, 60,474 turpentine, 5332 rosin; foundries and foundry supplies, 10,136 turpentine, 29,349 rosin; linoleum, 81 turpentine, 44,811 rosin; matches, 3430 rosin; oils

and greases, 28,380 turpentine, 54,427 rosin; paper and paper size, 6159 turpentine, 388,310 rosin; paint and varnish, 4,630,505 turpentine, 283,842 rosin; printing ink, 14,232 turpentine, 15,269 rosin; sealing wax, pitch, insulations

and plastics, 75,280 turpentine, 40,892 rosin; shipyards, car shops, etc., 62,865 turpentine, 790 rosin; shoe polish, 567,920 turpentine, 719 rosin; soap, 4215 turpentine, 228,599 rosin; miscellaneous, 61,633 turpentine, 6204 rosin.

1000-Car Garage for Baltimore

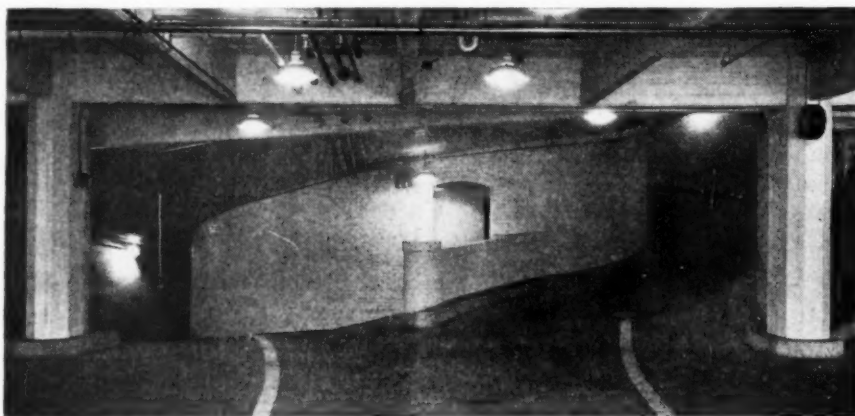
Construction has been completed on the 1000-car garage of the St. Paul Garage Company, controlled and operated by the Gillet Realty Corp. of Baltimore, and the unit is in operation. The building is of steel and reinforced concrete with brick exterior, four stories in height with basement. Foundations, columns and walls are designed to carry three additional stories. A new type double-spiral ramp with no sharp turns or change of grade, with wide curbs along both sides and banked to aid in steering, speeds up the handling of automobiles and eliminates danger of collision. Central telephone, pneumatic tube and telautograph systems are provided to accelerate checking of cars and the paying of bills. Two passenger elevators for tenants and a separate elevator for attendants have been installed, and lobbies and rest rooms provided for patrons. The entire second floor is reserved for hourly parking, for shoppers and theater-goers. Stores occupy two sides on the ground floor, opening on the garage lobby or on arcades.

Tenants can obtain a complete garage service: Washing and polishing, simonizing and waxing, vacuum cleaning, motor cleaning, Alemiting and lubricating,

crank case service, tire and battery service, air and water and minor adjustments. On each floor are gasoline and oil dispensing systems. Equipment for washing and greasing cars is provided on the fourth floor. In addition to large

contracts were awarded as follows, all of Baltimore:

Plumbing and heating—Lloyd E. Mitchell.
Electric wiring—Bonnert Electrical Contracting Co.
Elevators—Otis Elevator Co.
Reinforcing steel—Dietrich Bros.
Structural and miscellaneous iron—Maryland Steel Products Co.



Interior View Showing Double Spiral Ramp Construction

windows the building has a modern ventilating system and will be served by a thermostatically controlled steam heating plant.

Plans were drawn by Wyatt and Noltling. The Consolidated Engineering Company was general contractor and sub-

Roof and sheet metal—John O. White Co.
Steel sash—William E. Gambrill & Co.
Window glass—Swindell Bros.
Plate glass—Pittsburgh Plate Glass Co.
Copper store fronts—Wm. F. Zeller Co.
Marble, tile and terrazzo—Jos. B. Dunn & Sons, Inc.
Hardware—Hubbard & Eagleston
Automatic sprinkler—Grinnell Co., Inc.
Pneumatic tubes—G. & G. Atlas System, Inc.



Recently Completed St. Paul Garage for Downtown Baltimore, With Parking Facilities for 1000 Cars

The Economic and Industrial Structure of North Carolina

In Relation to the Made-in-Carolina Campaign

By

BRYAN W. SIPE,
Statistician, Department of Conservation
and Development, Raleigh

NORTH CAROLINIANS may take pardonable pride in the progress their State has made the past decade in education, highway construction, growth in manufacturing, increase in population and in other fields of endeavor. That record of progress has now become a more or less familiar story. Yet too often we are content to rehearse past achievements. We fail to analyze constructively the agricultural and industrial structure of the state in order to make sure of a well-rounded and evenly balanced development, upon which a great people can continue to build with confidence and assurance. It is the purpose of this article to analyze briefly the economic set-up in the hope that it may be the means of guiding future industrial expansion.

The "Live-at-Home" program last year developed the fact that we have more than \$1,000,000,000 invested in industry, the annual products from which amount to \$1,250,000,000. The value placed on farm lands for purposes of taxation is \$935,000,000 while the annual value of our agricultural output is only about \$400,000,000. In other words, the value of the products manufactured annually is more than the total investment in manufacturing plants, but the annual value of the products of farms is less than half the amount invested in farm lands. On this basis, agriculture is less than one-fourth as productive as industry. One reason agriculture in North Carolina is not returning a satisfactory profit is that our farmers devote practically all their time to growing crops, to the exclusion of developing an adequate livestock industry. Out of the total annual agricultural output of nearly \$400,000,000, something like \$325,000,000 is derived from crops, with \$75,000,000 or less from livestock and livestock products. The average annual crop value per farm during the past five years, 1924 to 1928, is \$1034 and the annual livestock production is only \$276 per farm.

The extent to which complete dependence is put upon our two principal cash-crops, tobacco and cotton, is emphasized

North Carolina does approximately \$1,000,000,000 of retail trade business annually. Of this sum about \$457,000,000 is spent for food, \$183,000,000 for clothing and \$76,000,000 for house furnishings. More than \$258,000,000 is spent in retail stores for miscellaneous products.

in the fact that combined they represent about two-thirds the value of the total crops grown in the State. Average value of the tobacco crop is approximately \$100,000,000 a year and the cotton crop, \$90,000,000. The "Live-at-Home" idea sought to encourage the farmers to supplement these cash crops, which have recently shown but a small margin of profit, with some food-and-feed crops; and to supplement crop farming itself with a larger amount of livestock and livestock products.

Some Results of Live-at-Home Campaign

As a result of the campaign, the cotton area in North Carolina has been reduced by about 160,000 acres, though tobacco acreage has been increased somewhat. More to the point, it is now estimated that our farmers will produce \$16,000,000 more in food and feed this year than last year. It is hoped that next year an even greater gain will be reported and so on until our farms are producing all the 150 or 200 million dollars worth of food and feed to purchase which we annually send most of our cotton and tobacco money out of the State. Thus, by a wise diversification, we will be able to achieve our agricultural independence.

Analysis of Industrial Structure

According to the 1927 census, the last year for which complete figures are

available, the output of North Carolina's ten leading groups of industries was as follows:

Industry	Value Output
Textiles and Products.....	\$425,437,522
Tobacco Products	413,274,114
Furniture	53,551,221
Lumber and Planing Mills.....	53,189,652
Fertilizer	18,293,687
Flour and Meal.....	17,847,452
Cottonseed Products	17,612,879
Leather, Cured	16,405,354
Railroad Car Construction.....	14,447,433
Printing and Publishing.....	12,259,226

Greater Diversification of Dominant Industries Needed

In manufacturing, the main dependence is on cotton and tobacco, the output of which is fully two-thirds the total output of all our factories. Two other industries have attained considerable importance, namely, the furniture and lumber industries, each of which has an annual production of about \$53,000,000. Not only is our main industrial dependence on two industries, but these two industries are not diversified as they might be. In the tobacco industry, North Carolina manufactures approximately 60 per cent of the 100,000,000,000 cigarettes manufactured in the United States while it manufactures only 10 per cent of the 440,000,000 small cigars and only two-tenths of one per cent of the 6,500,000,000 large cigars, and 30 per cent of the 396,000,000 pounds of tobacco and snuff produced in the United States. While there has been a slight decline in production of chewing tobacco and snuff and perhaps a further decline may be expected, there is every reason to believe the cigar industry will continue to hold its own. Hence, North Carolina cigar factories might well be justified in further expanding their facilities and thus better balancing the tobacco industry of the State.

In the textile industry, diversification is even less well balanced. While North Carolina has more spindles and consumes more cotton than any other Southern State, yet it takes second place in number of looms, yielding the leadership in this respect to South Carolina. North Carolina has 426 of the 1017 cotton mills in the South and 6,186,000 of the 19,100,000 Southern spindles. But North Carolina has only 86,318 of the 352,700 looms in the South. On the other hand, North Carolina has 229 cotton mills, or more than 50 per cent of the total number, making yarns only, and for many

of these coarse yarns there is a less ready market than for the finer yarns and finer grades of goods. Of those manufacturing cloth, a small portion are making the finer grades.

Products	Estab- lishments
Chambrays	13
Sheetings	24
Damask and Napkins	6
Draperies and Scrim	5
Ginghams and Dress Goods	38
Shirtings and Chevots	17
Flannels, Outings and Napped Goods	23
Checks, Plaids and Stripes	12
Twills and Jeans	5
Braids, Webbs and Narrow Fabrics	8
Tapestry and Upholstery	6
Plushes and Velvets	2
Broad Silks, Rayon and Mixed Goods	24
Pajama Checks	5
Jersey Cloth	1
Crash, Suiting and Covert Cloth	6
Broadcloth	2
Denims	5
Ducks, Drills and Cottonades	6
Khaki	1
Ticking	4
Awning Stripes	2
Cordage and Twines	12
Sewing Thread	1

The foregoing list may not be complete. It is intended merely to show the various grades of goods manufactured and bears out the fact that there has been too little emphasis on cloths, especially the finer grades, and too much on yarns, especially the coarser yarns. I am aware that in recent years there has been established an increased number of fine yarn mills and that there has been an extension of dyeing and finishing plants, both in connection with mills already established and as separate finishing units. This undoubtedly is a wise and profitable diversification of the industry.

The wearing apparel list, that is finished garments made of cotton goods manufactured in North Carolina, is only in its infancy. In this respect, we may be said to have barely scratched the surface, as a study of the following will show:

Products	Estab- lishments
Men's Work Clothing	12
Shirts	10
Women's Clothing	3
Scarfs	1
Shoe Laces	1
Neckwear	1
Underwear and Union Suits	15
Pajamas	2
Sweaters	2
Gloves and Mittens	5
Suspenders	1
Sporting and Athletic Goods	1
Handkerchiefs	1
Furs	1
Hosiery	200

Only in the case of overalls, underwear and hosiery does the State attain any considerable rank in production of wearing apparel. Surely we are consumers of all these items in large quantities and there seems room for expansion in their manufacture. Casual observation would suggest a large field for manufacturers of cotton dresses and men's light weight suits, to mention only two items. We have the raw material, the labor and the market for such garments.

In the case of furniture, most of our efforts are confined to production of wooden goods. There are a few pro-

ducers of metal furniture and no doubt there is room for expansion in this field, although there are recognized difficulties in the way, just as in the production of machinery and other items utilizing metals. But the difficulties are not insurmountable.

Canning and Food Products

The preserving, canning and processing of farm and livestock products are inviting fields into which we should expand rapidly in furtherance of the "Live-at-Home" program. There are some 20 or 25 butter-making establishments in the State, but their combined output in 1927 was only slightly more than \$214,000. We send millions yearly to other States for this item. There are only half a dozen cheese factories in the State, not a single one of which reported a production of as much as \$5000 in 1927, yet we consume thousands of pounds of cheese annually. In 1927, only four plants reported the canning of fruits and vegetables, the total output being barely \$55,000. Who can say how much we spend annually for canned goods which might be produced and canned and preserved within our own borders just as economically as elsewhere. In the case of the canning and preserving of sea foods, only five establishments reported in 1927 a total production of \$65,000. There was not a single milk evaporating or condensing plant in the State according to the last census yet we annually send out of the State more than \$55,000,000 for milk. In 1927, there were only seven meat packing plants with an output of less than \$2,000,000, yet we annually import \$23,000,000 worth of meat and meat products. Certainly North Carolina has the climate and soil conditions to produce these foods in sufficient quantity to justify the almost limitless extension of food processing and preserving establishments. The market is already here. This alone is a big field for diversification.

Thus we might go on through the list of some 340 classifications into which the Bureau of the Census divides industrial establishments, but it suffices to say it has been found that some 144 of these can profitably be produced in North Carolina. Yet we actually produce goods in only 68 of these classifications and many of these only in very small quantities, so small in fact as to be negligible.

Available Market Offers Opportunity for Industrial Expansion

In the case of most items mentioned, we already have a market within our own borders and in adjacent territory to the North and to the South of us.

What manufacturer dare scorn the purchasing power of the 3,170,287 people of North Carolina with an annual income of more than \$1,500,000,000? Cash income of the farm population alone is \$275,000,000 to which wage earners in our industrial establishments add another \$160,000,000 each year, to say nothing of the millions paid the 37,000 workers engaged in transportation, the 70,000 engaged in trade, the 35,000 in professional work, the 30,000 in clerical positions, the 11,000 in public service, the 60,000 or so engaged in domestic and personal service, and the millions derived from profits, dividends, interest, rents and investments of all sorts. The average family spends approximately 30 per cent of its income for foods, 12½ per cent for clothing and 5 per cent for house furnishings, to mention only three items. If this be a true estimate, North Carolinians spend each year \$456,480,000 for food, \$182,592,000 for clothing and \$76,080,000 for house furnishings. These figures indicate quite a sizeable market within the State. In addition, there are the contiguous states of Virginia, South Carolina and Georgia, which form part of the logical distribution area. These four States taken together have a population of approximately 10,000,000 people and an annual income of nearly \$5,000,000,000. For this reason, North Carolina ought to be a most inviting place for industry, especially industry producing goods within the 144 or so classes to which this territory by reason of raw materials, market, climate, transportation, power and labor is peculiarly adapted.

Big Florida Colonization Project

Fort Myers, Fla. — Simultaneously with the announcement of the organization of a \$2,000,000 corporation to handle the project, work was begun on the big Iona colonization development here. Plans call for the division of 5400 acres into 20-acre plots; and after clearing and plowing, a dwelling will be erected on each plot and an Italian family brought in to cultivate the land. Charles McAlpin, New York, is president of the corporation and S. H. Rogers, Fort Myers, secretary.

Would Sell \$10,000,000 Bonds

Washington, D. C.—The St. Louis-San Francisco Railway has applied to the Interstate Commerce Commission for authority to sell \$10,000,000 consolidated mortgage 4½ per cent bonds to Speyer & Co., J. & W. Seligman & Co. and the Guaranty Co., all of New York, at 90.25 and accrued interest. Funds from the bonds will be used to retire bank loans and for other corporate purposes.

Memorial Honors George Westinghouse

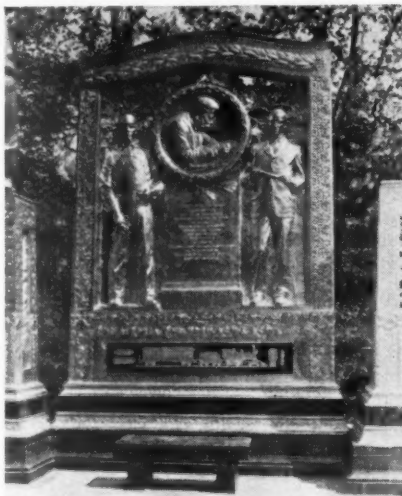


George Westinghouse
Inventor and industrialist, founder of Westinghouse industries.

The nation's leaders of industry, business and scientific research paid homage to the late George Westinghouse, founder of the Westinghouse industries, in the dedication of a memorial in Schenley Park at Pittsburgh, Pa., on October 6. The monument was erected by the Westinghouse Memorial Association, composed of 54,251 members, mostly Westinghouse employees, aided by appropriations by the Westinghouse Electric and Manufacturing Company and the Westinghouse Air Brake Company.

Dedicatory ceremonies were presided over by E. M. Herr, vice-chairman of the Board of Directors of the Westinghouse Electric and Manufacturing Company. The program included addresses by A. L. Humphrey, president of the Westinghouse Air Brake Company, one of the leaders in the movement for the memorial; James Francis Burke, former Congressman and now General Counsel of the Republican National Committee; and Bishop Alexander Mann of the Pittsburgh Episcopal Diocese. George Munro, representing the Westinghouse Veterans,

presented the memorial and Mayor Charles H. Kline made the speech of acceptance in behalf of the City of Pittsburgh. The program was interspersed by musical numbers rendered by the West-



Central Panel of George Westinghouse Memorial

Showing figure of Westinghouse leaning over his drawing board, the figure occupying the medallion between figures of skilled mechanic and an engineer.

inghouse employees' band and the Westinghouse employees' chorus.

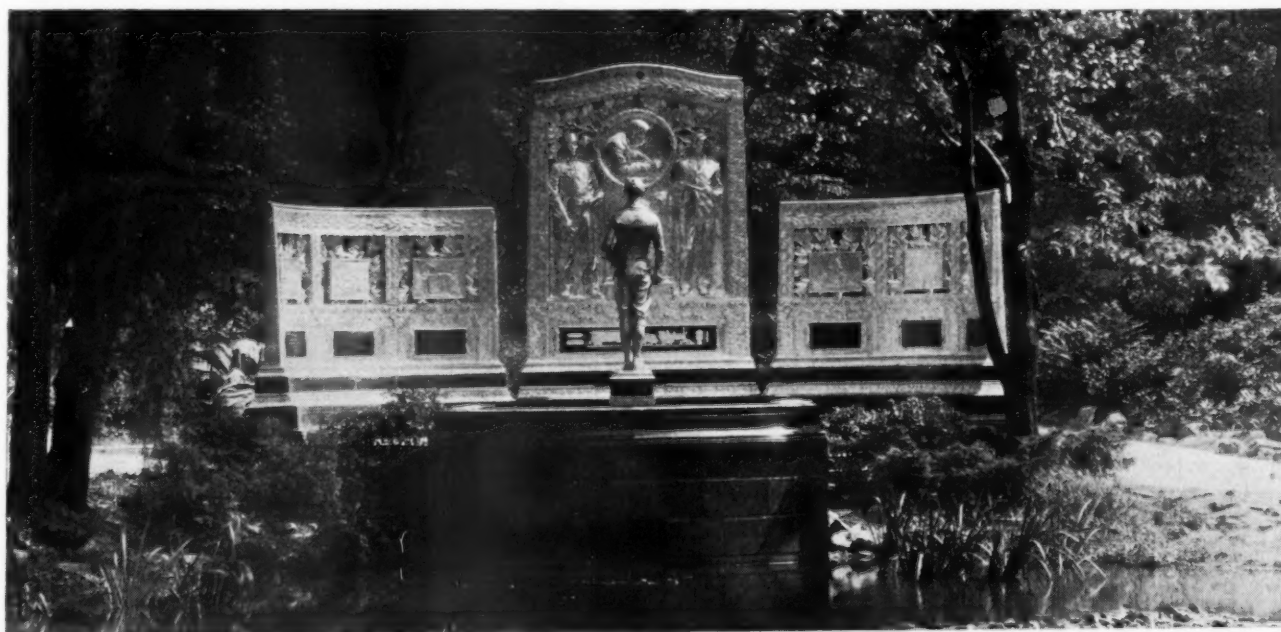
In the evening the guests attended a banquet at the William Penn Hotel,



Figure of American Youth

Ten-foot center-piece of Westinghouse Memorial, and sculptural triumph of Daniel Chester French, 80-year old artist.

where a program of music and speeches was presented. Dr. E. J. Van Etten delivered the invocation, and after the dinner the toastmaster, A. W. Robertson, chairman of the board of directors of the Westinghouse Electric and Manufacturing Company, was introduced by Mr. Humphrey. Addresses by Congressman James M. Beck, of Philadelphia, former Solicitor General of the United States, and Right Honorable Lord Southborough, G. C. B., prominent industrialist of London, followed. The program



A Front View of the Westinghouse Memorial Showing the Beautiful Setting.

On the right-hand panel are depicted three notable achievements of George Westinghouse—illumination of Chicago World's Fair, the air brake and the modern railway signaling system. The left panel shows three other achievements of the great inventor—alternating-current railroad electrification, the steam turbine introduced into America by Mr. Westinghouse, and the hydro-electric plant at Niagara Falls. The central panel and the center-piece are shown separately on this page.

was concluded by an address, "George Westinghouse — An Appreciation," by John F. Miller, vice-chairman of the board of directors of the Westinghouse Air Brake Company. Both the afternoon and evening programs were broadcast by Westinghouse Electric Radio Station KDKA.

The memorial represents the combined efforts of Henry Hornbostel, architect; Daniel Chester French, sculptor; Paul Fjelde, sculptor, and other artists associated with them. The entire monument was modeled in wax, under guidance of the architect, by Massaniello Piccirilli, the execution of this requiring 14 months. Bronze castings were made by the Gorham Bronze Company of Providence, R. I.

Casting aside classical allegorical and conventional precedents, the creators of the monument produced a unique work, modern in character, typically American in spirit, and "wonderfully successful in conveying to the spectator a feeling of veneration for the genius whom it commemorates." The figure of George Westinghouse is shown in a large medallion, leaning over his drawing board, but greater emphasis is laid on those who worked with him, the things of steel and power which he brought into being, and, more especially, an American youth, who gazes upon him with eager yet reverent interest.

Not the least important part of the memorial is its setting. A stream has cut a valley through a steep hillside, and in this valley, where it is hidden until one is almost upon it, the memorial has been placed. A pond, covered with lily pads, overhung with weeping willows and encircled by walks, occupies the entrance to the valley and behind it, through the green of drooping branches is caught a gleam of gold, for gold leaf has been used lavishly on the monument because, according to Henry F. Hornbostel, who, with Eric Fisher Wood, designed the work, "It will give the monument an interesting surface which will be enhanced by the smoky atmosphere of the city, will never become black, and will endure for thousands of years, as is shown by traces of gold still to be seen on the monuments of the Roman Caesars."

The monument itself stands upon a base of Norwegian granite, a jet black stone with embedded crystals of feldspar which gleam blue where the light strikes. Its principal component consists of a large central panel flanked by two semi-circular wings, all of which are made of gold-leafed bronze with Norwegian granite insets. The central panel carries the medallion of George Westinghouse supported on an open-work background of oak tree foliage, and on either side are two figures, one a skilled mechanic and the other an engineer with his slide rule.

At the bottom of the central panel is a memorial of the most important period of Mr. Westinghouse's career, a representation of the first train to be equipped with the Westinghouse air-brake. Each flanking wing is divided into three panels, and on each panel is depicted in low relief one of the inventor's achievements. These panels, executed by Paul Fjelde, presented a difficult artistic program as the subjects are all mechanical. Mr. Fjelde solved the problem by what is described as a skillful handling of the most prominent lines in each of his subjects. "His trains rush forward, his searchlights quiver and the waters pour over the cliffs at Niagara. The central panel and its supporting wings would in themselves form a beautiful and interesting monument, but the creative genius of the artist has added another detail which transforms the whole work from a dead into a living record, the figure of the American youth. Standing well back from the panels and facing it, in a natural position and attitude, he represents this generation inspired by the accomplishments of the master."

Daniel Chester French, 80-year old sculptor, modeled this youth, as well as the central panel of the memorial, and it is believed by many critics that this latest product of his genius must be placed among the foremost of his works. More than a year of constant work was spent on the figure. The American youth is of heroic size and is of gold-leafed bronze to correspond with the rest of the memorial. School books are carried in one hand and in the other the cap, removed in reverence and crumpled in the fingers.

Special attention was given to landscaping of the surroundings of the memorial, as its setting was considered as important as any other detail. The building of paths, the planting of rhododendrons and countless other shrubs, removal of trees that marred the general effect and careful preservation of those that added to it, the placing of Norwegian granite benches, creation of the pond formed by the stream that trickles out from under the memorial itself—all these help to bring about a complete artistic ensemble.

Tulsa Builders Association

Tulsa, Okla.—Articles of incorporation have been filed for the Tulsa Builders Association, with R. R. Park, president; R. Glenn Wilson, vice-president, and James J. Hempfling, secretary and treasurer. A committee has been appointed by the association to study the city building code, in which it is understood the Chamber of Commerce will co-operate, for the purpose of effecting a reduction in building costs in Tulsa.

To Promote Arkansas Industry

Little Rock, Ark.—Representatives of 17 trade associations, meeting in this city, organized the Arkansas Industrial Council to promote organized industrial progress in the state. The meeting was called by J. B. Carter, Pine Bluff, secretary of the Associated Industries of Arkansas, and a report of business conditions was presented by representatives. C. H. Harding of the Harding Glass Co., Fort Smith, was elected chairman of the council and Mr. Carter secretary. An advisory board was named as follows: M. B. McLeod of the Southern Lumber and Supply Co., Warren; R. P. Stewart, Fort Smith, and Leonard P. Biggs, Little Rock, secretary of the Arkansas Hardware Dealers Association and the Arkansas Retail Lumbermen's Association. The next meeting of the council will be held in Little Rock in December.

\$480,000 Public Improvements

Jasper, Tex.—A new waterworks and sanitary sewer system has been completed here at a cost of \$180,000 and plans are being made by city officials for a \$300,000 paving program. The water system provides storage for 400,000 gallons of water in two reservoirs, one of 300,000 gallons capacity constructed on the ground and a tank of 100,000 gallons capacity supported by a standpipe 100 feet high. A well 600 feet deep affords 600,000 gallons of water daily. The plant is automatic and the water purified by a chlorination process. Plans were prepared by G. L. Fugate, who served as consulting engineer, and construction was under the supervision of C. P. Hunter, city engineer. The paving program has been delayed until the water and sewer systems were completed, but it is understood that it will soon be started and is expected to be completed early next summer.

Big Power Unit Completed

Asheville, N. C.—A new unit of 49,000-horsepower capacity has been completed by the Carolina Power and Light Co., Raleigh, at its Waterville hydro-electric plant on the Pigeon River at the North Carolina-Tennessee line. This brings the capacity of the two units of this station to 147,000 horsepower, the first unit having been put in operation last spring. The dam, located more than six miles from the station, is 182 feet high and 870 feet long. Water is brought to the plant through a tunnel in the mountain and power is widely distributed, with a main line to Canton N. C., and Greenville, S. C.; another to Asheville and on to Greensboro, and a third to Kingsport, Tenn.

Highway Research Makes Progress

Problems Incident to Growth of Traffic Necessitate Continuous Program of Study and Experimentation

By

R. W. CRUM,

Director, Highway Research Board,
Washington

THE UNITED STATES Bureau of Public Roads, nearly all the State Highway Departments, 100 or more engineering colleges and many commercial associations are engaged in seeking answers to innumerable questions that have arisen since we have been trying to keep pace with the tremendous growth in traffic on the highways.

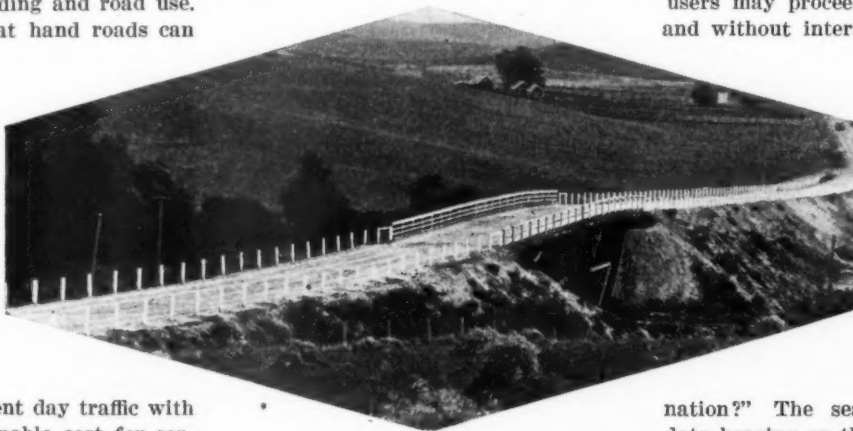
Great strides have been made in the last decade in the arts and sciences connected with road building and road use. With the knowledge at hand roads can

to handle an entirely new kind of traffic had to be developed with great rapidity to keep pace with motor car development. Of course, the more obvious needs of the situation and problems to which answers were fairly obvious were at-

the same general questions that have been with us for a generation still appear:

"What will the roads and their use cost?" "How shall the cost be distributed equitably in proportion to benefits derived by communities, land owners and users?" "How shall roads be designed and built so that traffic will be adequately served at least cost and how shall traffic be regulated so that users may proceed expeditiously, safely and without interruption to their desti-

Demands of Public Safety Justify the Expenditure of Large Sums



for the Elimination of Hazards Which Are Due to Grade Crossings

be built to carry present day traffic with somewhere near reasonable cost for service and use, but before real economy can be attained much research must be carried out, for there is still a great dearth of fundamental data, both engineering and economic.

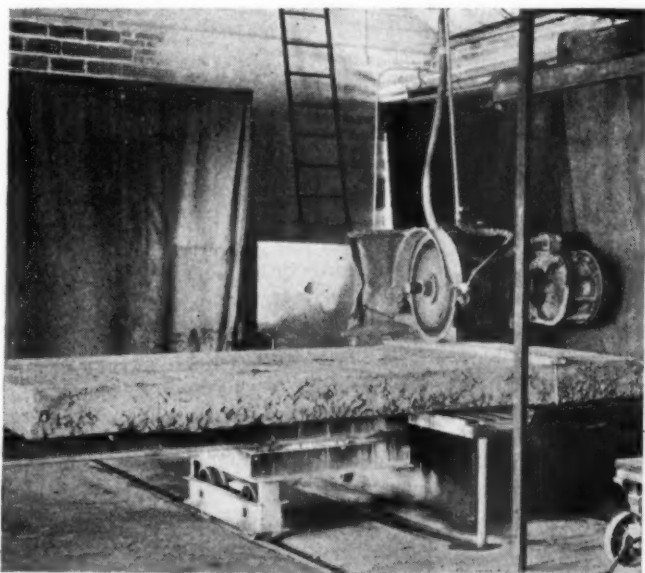
Looking back over the past 20 years we see that methods of road building

tacked first by research workers, and progress has been relatively fast. Progress on the many complicated and intricate problems on which investigation is now needed will necessarily proceed more slowly.

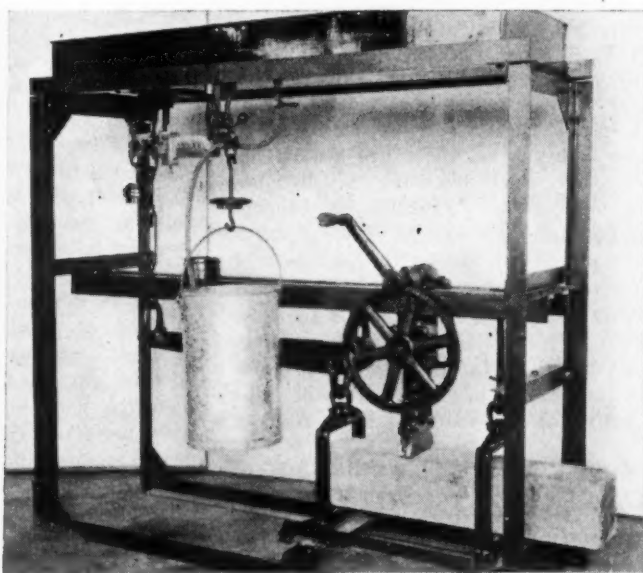
In spite of substantial progress made,

nation?" The search for fundamental data bearing on these questions must go forward. There is a general realization that coordination of effort of the large number of research agencies is desirable, and that a comprehensive research program is greatly needed.

The Highway Research Board at its last annual meeting presented for the



Sawing Full Size Concrete Paving Slabs Into Test Specimens



Testing Machine Used to Determine Time for Opening Pavement to Traffic



In Those States Where Snowfalls Are Heavy One of the Winter Problems Is to Keep the Highways Open

guidance of its committees statements and analyses of major highway problems and called attention to much of the research needed.

Highway Finance

THE GENERAL PROBLEM is equitable distribution of the cost of providing highway service in proportion to benefits derived therefrom. It may be assumed that benefits accrue in four ways, (I) National benefit by providing for free flow of traffic between states and by provision for national defense, (II) General benefit to community life, (III) Special benefit to abutting property, and (IV) Benefit to the individual user of the roads. Revenues should be raised from each of these four sources, the unanswered questions being: "What portion should each source contribute, and in what ratio should the funds be allocated among—the through traffic highways, the community roads, the purely local roads, and municipal streets?"

Studies of such matters as trends in inter-state highway traffic; effect of road improvements on community prosperity and upon land values; effects of different types of roads on vehicle operating costs; relative use of different classes of roads; and use of credit in road building, all these are needed before correct principles for the distribution of cost in proportion to benefits can be finally determined. Several states have already expended the proceeds of large bond issues for road improvements. Studies of economic conditions in those states as related to highway transportation should go far to answer the question as to the practical value of thus speeding up the road building program.

Highway Transportation Costs

THE ANNUAL COST of transportation over any length of highway consists of the yearly cost of providing the roadway ready for service plus the cost of operation of all vehicles while using that particular road during the year.

A knowledge of all factors entering into this total cost is needed to furnish a basis for equitable taxation of vehicles, for proper layout of highway improvement programs and for economic design of the roads. In other words, highway transportation cost is a dominant factor in the solution of all major highway problems.

If vehicle owners are to be expected to pay a large part of the highway service bill, they should be taxed in proportion to the extent to which each uses the roads and in proportion to the effect of his vehicle upon the annual cost of providing the highway. The class of road service to be provided the user should also be taken into account in fixing the tax rate, for the user can afford to pay more for the use of a good road providing a free flow for traffic than for the use of a poor road with frequent constrictions. Methods for accurate determination of these factors depend on further study of costs.

Principal elements upon which data are lacking in connection with the cost of providing the highway itself are the effects of quantity and kind of traffic on maintenance costs, and rates of depreciation and salvage values of different types of roads under various conditions.

Upon even moderately traveled roads the cost per annum for vehicle operation far exceeds the cost of providing the roadway. Small differences in operating costs per mile per vehicle may amount to large sums and should be taken into account in designing roads. Effects of the kind of road surface, grade and alignment, tire wear, car maintenance and time lost due to enforced waits and congestion upon vehicle operating costs are in need of intensive study. For the most part this job consists of collecting cost data under a wide range of conditions. This problem is well discussed by Agg and Carter in a recent publication, Bulletin No. 91, "Operating Cost Statistics of Automobiles and Trucks," issued by the Engineering Experiment Station of Iowa State College. It is

hoped that much similar work will be done.

Highway Design

PRIMARY CONSIDERATIONS in highway design have to do with durability, vehicle operating costs, safety and uninterrupted service. Location, grades, alignment and width have large effects upon transportation costs, traffic capacity and safety.

A comprehensive research program would contain very many items of needed research, including such important ones as: Further knowledge of soil characteristics and application in practice; effects of volume and weight of traffic on maintenance costs of various types of road surface; thickness and quality of concrete bases for brick and bituminous pavements; effects of weather and climate; salvage values.

Materials and Construction

PROBABLY THE GREATEST progress has been made in the realm of physical features of road construction and this is especially true with respect to materials. Nevertheless, even here research is needed and particularly coordinated research. Certain it is that more determinative tests of cement and concrete aggregates will be developed, that better understanding of factors affecting durability of mixtures of materials, both cement concrete and bituminous will be had, and that methods for use of materials with maximum economy will become available.

Maintenance

AS TRAFFIC INCREASES and vehicle types change, the maintenance engineer must continually develop new methods for keeping roads as nearly as possible up to their original condition at reasonable costs. Many developments must of necessity come through cut and try experiments, but others await adequate research study. More information is needed on maintenance of cracks and joints in concrete pavement, resurfacing methods and materials, loss of material on traffic bound roads with and without dust palliatives, resmoothing bituminous surfaces, methods of snow removal, drift prevention and treatment of icy pavements, and effect of traffic upon maintenance costs.

Traffic

THE SOLE PURPOSE in building and maintaining highways is to provide service for the traffic, and the principal highway effort is to provide roadways such that the combined costs of building, maintaining and using them safely will be as low as possible. To reach this desired end, adequate service must be provided and vehicles must use the

roads in an efficient manner. In order to design highways and formulate regulations for their use, information about the amount and behavior of the traffic is necessary. Vehicles should be able to get over the roads expeditiously, economically and safely. To these ends four factors must contribute: Improvement programs, road design, traffic regulations and education.

In order properly to evaluate each of these factors in planning regional or state improvement programs, it is necessary to have highway transport surveys, including not only counts of present traffic but study of transportation trends and influences for estimation of future traffic. Research work in connection with the use of highways consists largely in a search for possible betterments by study of the information collected through transport surveys, traffic counts and accident reports and statistics.

The object in regulating traffic is to expedite movement of vehicles with safety. Most regulatory methods in use today have the effect of restricting rather than expediting traffic. There is a real need for research that will divorce itself from present regulations and conditions, and develop the fundamental mechanical and psychological principles upon which regulations that will expedite traffic movement with safety can be based. For instance, clear conception is needed as to the inherent and legal rights of each vehicle in its use of the road and in its relation to other vehicles. Also more definite ideas as to what traffic regulation should accomplish are needed. The principal problem in traffic regulation is the acquisition of basic facts on which regulatory measures can be based so that results will not be merely matters of opinion. The problem with respect to safety is how to inculcate vehicle drivers and pedestrians with safe traffic habits. The concern of the highway engineer in so far as possible is to eliminate physical hazards.

Low Cost Roads

OF THE 3,000,000 MILES of roads in the United States, only one-tenth are at present classed as primary. It is probable that the greater part of the secondary mileage never can be improved with expensive pavements, but there is no question of the resulting economic advantages if the immense mileage that is now practically unusable for a considerable portion of each year could be made to provide year-round service. These roads range in traffic needs from the strictly local road, used only by the residents alongside it, to the busy feeders of the primary system. All types of improvements will be used, depending on the traffic. A need for research lies in the fact that types suitable and eco-



In Constructing New Highways Under Modern Conditions the Character of the Probable Traffic Is Always a Consideration

nomical for the lower traffic classes have not yet been devised.

How to find enough money to satisfy the need for year-round serviceability of these roads and, conversely, how to build them adequately with the limited funds that will be available are problems that demand the best thought and skill of highway engineers and officials.

Much information is available on methods that have been tried for construction of roads that may be classed as intermediate in type. These are principally surface combinations of bitumens and mineral aggregates upon bases of earth, gravel, macadam, slag, etc. The Low Cost Road Report and reports of the Maintenance and Materials Committees of the Highway Research Board and proceedings of the 1929 Asphalt Paving Conference furnish descriptions of most of the combinations and methods that have been tried. From a research standpoint two lines of study seem to stand out as particularly important at this time: (1) Development of the fundamental inter-related characteristics of mineral aggregates and bitumens, and their combinations. (2) Collection of data on the effect of quantity of traffic on annual cost of providing roadway service of various types.

In the lowest class of roads, outside of regions where sand-clay and top-soil construction is cheap, little progress has been made. There is a great need for discovery of some now unknown method of soil treatment that will result in effective and very low cost improvement of earth roads. Probably no other single investigation that can be defined is of as much importance in the highway research field.

Sub-Grades

TECHNICAL STUDY OF SOIL behavior and soil mechanics in relation to road improvement is progressing in a number of laboratories. Committees of the Highway Research Board and of the American Road Builders Association are engaged in correlation and study of this work. The outstanding recent develop-

ment is the progress in making application of scientific information on soils to practical road problems. Papers by C. A. Hogentogler at meetings of the Asphalt Paving Conference and the Highway Research Board will be found to be especially interesting in this regard.

Highway Research Program

THE HIGHWAY RESEARCH BOARD has outlined a program of needed research looking toward solution of the manifold questions facing the industries of highway service and highway transport. Such a program will be subject to continual change. Final answers will be reached at times, new projects must be frequently added and changing conditions will no doubt render some work valueless even before it is completed. Having a program outlined, it is our hope to keep it up to date continuously.

Such a research program as this will not be of much value unless the necessary experimental work is accomplished, the results thoroughly studied and sound conclusions drawn and put into practice. The Highway Research Board therefore plans to do much more than merely outline a research program. The plan of activity may be briefly stated as follows:

- 1—To draw up a comprehensive program of highway research.
- 2—To compile and have available for dissemination information and references on the existing status of knowledge of the various projects.
- 3—To compile and keep up-to-date lists of current research projects throughout the United States.
- 4—To promote with the various research agencies the carrying on of experimental work recommended in the program.
- 5—To conduct special investigations of national scope.
- 6—To correlate the work of the various investigators, to study the results of research work as they become available, and to draw sound and usable conclusions wherever possible.
- 7—To disseminate research information.

First Distribution Census Figures Cover Four Representative Cities

By

DR. ROBERT J. McFALL
Chief Statistician for Distribution,
United States Bureau of the Census,
Washington, D. C.

FOUR representative cities of distinctive types in different sections of the country are the first for which information gathered in the new Census of Distribution is issued: El Paso, Texas, in the great agricultural and cattle raising Southwest; Trenton, N. J., manufacturing and railroad center; Pueblo, Colo., in a mining and smelting district, and Syracuse, N. Y., another manufacturing and business center.

These preliminary reports give the outstanding information available in the Census of Distribution, but by no means do they present the detailed information which can be published later. Information now being shown includes net sales and stocks, the number of full-time employees and total salaries and wages for all. All this information is being presented for the businesses in each city, carefully classified by type of establishment and kind of business. The kind of business classification is based chiefly on the principal class of goods handled by the establishments. Thus we show grocers, hardware dealers, automobile dealers, druggists and others. The type of establishment involves another kind of classification. In the wholesale field, this distinguishes between wholesalers or jobbers and commission merchants, brokers, manufacturers' agents and the like. All in all, among the wholesalers we are distinguishing between approximately 50 types of distributors engaged in this general type of activity.

In the retail trade, the differentiation shown by type of organization involves chiefly the distinction between independents and the various chains or multiple groups of stores. Of course, in all cases the retail business is distinguished as carefully as is possible from the wholesale type of business. In every case the year covered is that of 1929, but it should be pointed out that the exact period covered is not of prime significance since the information is of basic nature, no such census ever having been taken before in this or any other country. Its greatest value lies in the fact that it shows the relative importance of all kinds and types of distributors and the relation between sales, stocks, number of employees, expenses, etc.

In the figures published for these four cities, there is shown the number of wholesale and retail outlets in each community, sorted in very great and practical detail. This community information will be of particular value to manufacturers, wholesalers, advertising agents

and the local business communities in analyzing their own business structure.

The information on employee and wage data is of particular interest at the present time when so much attention is being paid to the question of employment. Information regarding employees and wages involved in the sale of automobiles, accessories and supplies, including gasoline, will show for the first time the extent to which this comparatively new industry is absorbing employees from other branches of business.

These preliminary census figures also show, for the first time in our history on any comprehensive basis, the division which the consumer makes of that large portion of his dollar which goes for commodities sold to him by retailers. We will know what part of the retail purchasing capacity of the nation goes to the automotive trade as compared to the food trade and the clothing trade. In this way we will be able to take stock of the nation's business as we have never been able to before.

After an interval of a few weeks which will be required to receive and tabulate the remaining chain store returns, many of which affect the figures of a large number of cities, reports for other large cities will be issued on a basis comparable to these four being released now.

The following preliminary summary of the distribution census of El Paso is a sample of what the Census Bureau is planning to issue for the larger cities of

the country, and for States and counties.

Wholesale Distribution 1929, El Paso, Texas

Total sales through wholesale establishments in El Paso for the year 1929 amounted to \$56,647,969, reported by 149 wholesale distributors operating in a number of lines of business, with average sales per establishment amounting to \$380,188. Attention is called to the fact that wholesale business reported does not include sales by El Paso manufacturers made direct from plant locations; nor does it include wholesale sales made by retailers.

These 149 wholesale establishments employed 1,556 persons, paying \$2,684,797 in wages and salaries. It is impossible, however, to compute the average wages per employee since the employment period is not known. The wholesale establishments carried an inventory of \$5,926,809, showing an average ratio of sales to inventory of 9.5. The largest total volume of business at wholesale was transacted in the grocery field, followed in order by produce, hardware, automobiles and automotive equipment, and electrical goods. Statistics showing the number of distributors, employees, wages and salaries, inventories, net sales and average sales per establishment for all types of wholesale distributors by kinds of business are presented in Table 1. The classification by kinds of business as shown in this table is based on principal lines of merchandise handled by a given firm during the year 1929 covering at least 60 per cent of its total volume of business.

It is interesting to note that in Table

TABLE 1—ALL TYPES OF WHOLESALE DISTRIBUTORS IN EL PASO BY KINDS OF BUSINESS, 1929.

Kind of Business*	No. of Whol. Distrs.	No. of Em- ploy- ees	Net Sales	Average Sales per Estab- lishment	Wages and Salaries	Stocks on Hand
Total preliminary	149	1,556	\$56,647,969	\$380,188	\$2,684,797	\$5,926,809
Automobiles and Automotive Equipment	5	117	4,256,899	851,380	243,160	571,386
Chemicals and Drugs	3	12	408,578	136,193	15,497	592,265
Confectionery	3	18	213,697	71,232	21,164	30,088
Dry Goods	8	150	2,585,913	323,239	291,336	583,179
Electrical Goods	5	54	3,698,497	739,699	152,737	269,817
Furniture and House Furnishings	4	34	654,458	163,614	41,686	74,487
Groceries	26	260	14,403,525	553,982	465,298	918,129
Hardware	5	159	4,328,887	865,777	208,109	1,176,402
Leather and Luggage	3	29	274,688	91,563	41,282	29,277
Machinery, Equipment and Sup- plies	13	117	3,200,926	246,225	268,889	352,974
Meats and Meat Products	6	96	3,163,918	527,320	119,105	137,520
Petroleum and Petroleum Prod- ucts	8	66	2,507,133	313,392	153,043	91,806
Produce	24	204	5,607,612	233,651	295,375	124,302
Textiles and Textile Materials	4	40	3,438,089	859,520	74,071	301,650
All Other	32	200	7,905,149	247,036	294,045	673,527

*It was necessary in certain cases to combine two kinds of business into one general group in order to avoid disclosing information for individual firms. For example, automobiles and automotive equipment have been combined into one group. The same is true of chemicals and drugs. These would normally be given separately if the number of establishments in the community were large enough to justify such a segregation.

TABLE 2—TYPES OF WHOLESALE DISTRIBUTORS IN EL PASO, ALL KINDS OF BUSINESS, 1929.

Type of Wholesale Distributor	No. of Whol. Distrs.	No. of Em-ploy-ees	Net Sales	Average Sales per Estab-lishment	Wages and Salaries	Stocks on Hand
Total Preliminary	149	1,556	\$56,647,969	\$380,188	\$2,684,797	\$5,926,809
Wholesalers	84	1,181	30,844,417	367,195	1,988,100	4,723,970
Brokers	13	21	6,904,665	531,128	30,696
Bulk Tank Stations	3	43	1,838,632	367,726	113,179	73,253
Commission Merchants	5	4	604,184	120,836	6,512
Export Merchants	7	39	1,077,708	153,958	56,617	723,388
Manufacturers' Agents	9	16	1,591,891	176,877	35,066	22,002
Manufacturers' Sales Branches ..	17	195	10,479,002	616,412	358,553	315,794
Supply Houses	5	28	379,466	75,893	50,214	66,102
All Other	4	29	2,928,004	732,001	45,860	2,300

2 the largest sales per establishment were reported by manufacturers' sales branches, with an average of \$616,412. Brokers were second, with \$531,128 sales per establishment. Bulk stations operating in the petroleum industry ranked third, with \$367,726 average sales. Wholesalers occupied fourth position, with average sales per establishment of \$367,195.

Brokers and commission merchants reported no stocks on hand. The 84 wholesalers carried the largest total inventory and employed as many as 1,181

people out of the 1,556 total number employed by all of wholesale establishments covered in this report. Thus, while wholesalers constituted only 56.4 per cent of the total number of wholesale distributors, they employed 75.9 per cent of all persons engaged in wholesale distribution, and carried 79 per cent of total inventories reported by all such distributors.

Retail distribution figures are covered in a similar manner. They indicate that a retail business in excess of \$50,000,000 annually is done in El Paso.

\$2,000,000 Medical College Buildings

New buildings are being erected at Nashville, Tenn., for Meharry Medical College, Dr. J. J. Mullowney, president, at a cost of approximately \$2,000,000. The school is for the training of negro physicians and probably will be the largest of its kind. Construction was begun in April and is expected to be completed by the latter part of 1931, the work consisting of a main school and hospital, 3-story nurses' home and a power plant. Main building will be 280 by 340 feet, 5 stories, of reinforced concrete construction, with concrete foundations, mastic tile and concrete floors and built-up and asphalt roof. Gordon and Kaelber, Rochester, N. Y., are the architects and Hart, Freeland and Roberts, Nashville, associate architects. The Angle-Blackford Company, Greensboro, N. C., is general contractor and Charles Nelson, Nashville, is chairman of the building committee. Sub-contracts have been awarded as follows:

Laboratory furnace—Kewaunee Manufacturing Co., Kewaunee, Wis.
Excavation and masonry—Bush Building Co., Nashville, Tenn.
Laundry equipment—Troy Laundry Machine Co., Chicago, Ill.
Marble, tile and terrazzo—R. N. Vanderbilt, Roanoke, Va.

Painting—William Wilson Co., Atlanta, Ga.
Elevators—Nashville branch of Otis Elevator Co., New York
Lathing and plastering—James A. Smith & Son, Durham, N. C.
Roofing and sheet metal—C. H. Reese, Nashville, Tenn.
Electrical work—Sanborn Electric Co., Indianapolis, Ind.
Acoustical treatment—Smith Murray, Inc., Syracuse, N. Y.
Erecting reinforcing steel—The Terry Erection Co., Greenville, S. C.
Mastic and rubber tile floors—Hachmeister-Lind Co., Pittsburgh, Pa.
Pneumatic tube system—Lamson Company, Syracuse
Refrigeration and ice-making machinery, plumbing and heating—John Bouchard & Sons Co., Nashville
Sterilizer equipment—Wilmot Castle Co., Rochester, N. Y.
Copper covered and tin clad doors—George W. Ruth & Co., Nashville
Radial brick stack—Moore Broach Engineering Co., Atlanta
Millwork—Phoenix Planing Mills Co., Atlanta
Hollow metal doors and elevator enclosures—Niedringhaus, Inc., St. Louis, Mo.
Browne windows—Richey, Browne & Donalds, Inc., Syracuse
Erect Browne windows—Roesch & Associates, Inc., Syracuse
Miscellaneous and ornamental iron—J. D. Wilkins, Greensboro, N. C.
Rollerscreens—Southern Screen & Weather-strip Co., Nashville
Structural steel—Carolina Steel & Iron Co., Greensboro
Clyde hoisting engine—Wilson-Weesner-Wilkinson Co., Nashville
Lumber—Norvell & Wallace, Nashville
Concrete—Nashville Ready-Mixed Concrete & Supply Co.
Steel windows—Greensboro branch of Truscon Steel Co., Youngstown, Ohio.



Meharry Medical College Under Construction at Nashville

Russia Wars on Civilization

"Dumping" of commodities in the world's markets for account of the Soviet government accomplishes two purposes, both of which fit into its plans. It furnishes means to buy the machinery and manufactures needed for the industrial development of Russia and it helps to intensify the depression prevailing in the "capitalist" world. Coming at a time when the nerves of that world are in none too healthy state it takes on an atmosphere of malefic mystery and diabolic ingenuity, under the influence of which we are disposed to listen to the counsels of our fears rather than of our reason. If, however, we look calmly at the phenomenon it will not be difficult to strip it of some of its mystery.

The Soviet government can undersell all competitors in the world's markets so long as it can persuade or compel its labor to work for a less wage than that which labor elsewhere demands, and so long as it has the material upon which that labor can work. Such is its situation today so far as grain, lumber, petroleum, fruits, wood-pulp, etc., are concerned. Thus far it has been able to force or cozen its people to produce a certain amount of these things in return for low prices or wages paid in a currency which itself can be and is being debased at will. There is practically nothing being exported by the Soviet today which is not the result of this condition. There are in Russia no scientific miracles of method unknown elsewhere in the world—quite the contrary. Years ago just before the war, it was said of Great Britain that her differential advantage in world-trade was underpaid and under-nourished labor. If that were true of Great Britain in pre-war days it is certainly true of Russia today. If it can be supposed that any people will consent, consciously or unconsciously, to exist permanently in such a state, that people, if it can command the necessary natural resources, can take the markets of the world with its products. To the extent that it has already occurred and is occurring, today's "dumping" is a sample. Theoretically of course the world might for the protection of its own labor close its markets to Russian products but this is not a practical possibility, and, as a visitor from Mars might put it, if a people deliberately desires to play helot for other peoples why not let it do so?

In one respect the Soviet government is a unique historical phenomenon in that it aims openly at the destruction of those things which are the foundations of the Western civilization. It has put us all upon notice that its word is worthless—even in business. It has struck at the home and the family—the very building stones of the state. Even the Hottentot and the Bushman have a code by which they will live but the Soviet has none. And in order to make quite sure that there should be no mistake as to its purpose it has declared open war upon Almighty God Himself. It is about as complete a characterization as one could make of the modern "liberal" mind today that it seems to think well of all this.—Wall Street Journal.

\$1,250,000 Houston Building

Houston, Tex.—Plans have been made by the Texas Building Co., an organization of Jesse H. Jones & Co., to erect a \$1,250,000 office building at Travis and Walker streets, this city, for the companies of the United Gas System. It will be known as the United Gas Building and will provide office space for the United Pipe Line Corp., the United Production Corp. and the United Gas Distribution Co. The structure will be 10 stories, with foundation to carry 6 additional stories, 100 by 125 feet. A. C. Finn, Houston, is the architect.

May Improve Section of Red River

Texarkana, Ark.—A hearing will be held by Major John C. Lee, United States District Engineer, on October 28, at the Miller County courthouse here, on a preliminary examination of the Red River through Texas, Arkansas and Oklahoma, between Fulton, Ark., and the Washita River in Oklahoma, to consider the feasibility of improvement and navigation. Delegations from towns on both sides of the river between Denison, Tex., and Shreveport, La., are expected to attend the hearing.

\$650,000 for College Additions

Clarksville, Tenn.—Plans have been approved by the Middle Tennessee committee of the State Board of Education, Nashville, for the expenditure of \$650,000 for new structures at the Austin Peay Normal School here; at the State Teachers' College, Murfreesboro, and the Tennessee Polytechnic Institute at Cookeville. R. H. Hunt & Co., Chattanooga, are architects for a science and home demonstration building at Murfreesboro and a classroom building at Cookeville, each to cost \$225,000, while Emmons Woolwine, Nashville, is architect for a dormitory and demonstration building here to cost \$200,000. Bids on the three buildings will be received until November 6.

To Push Tennessee River Work

Knoxville, Tenn.—In an effort to have the work of improving the Tennessee River started soon, the chambers of commerce of Knoxville and Chattanooga have appointed committees to negotiate with the United States engineers. The committees are particularly interested in having the section of the channel between Knoxville and Chattanooga de-

signed for initial work and met on October 1 to map out a program of activity. The Knoxville committee is composed of T. J. McLean, president of the Chamber of Commerce, chairman; Mayor James A. Trent, A. P. Frierson, Victor Klein, H. B. Lindsay, Dr. Reese Patterson, Fred Underwood, George Oehler, E. C. Mahan, W. M. Bonham, John Jennings, W. S. Hall, Mitchell Long, J. D. Hope and John Sadler. The Chat-

anooga committee is composed of Mercer Reynolds, chairman; S. H. Campbell, E. Y. Chaplin, Henry King, R. C. Jones, I. B. Merriam and D. H. Wood. United States Senator W. E. Brock is assisting the committees in an advisory capacity. Congress has already appropriated \$75,000,000 for the Tennessee River project, with \$5,000,000 immediately available for work on any section which may be selected by the United States engineers.

\$1,700,000 Union Station Completed

The union station recently completed in Texarkana, Ark.-Tex., at a cost of approximately \$1,700,000, was erected by the Texarkana Union Station Trust, St. Louis, organized for that purpose and in which the Missouri Pacific, Cotton Belt, Texas and Pacific and the Kansas City Southern railroads are interested. The main station building is 380 feet by 50 feet, 2 stories high except for a 92-foot section near the center, which is 75 feet wide, 3 stories high. In the first story, 18 feet 9 inches high, space was provided for express and baggage rooms, service equipment and other facilities, while the main story, 18 feet high and 11 feet above street level, is devoted to waiting rooms, rest rooms, ticket offices, dining room, kitchen, lunch stand, concession booth, etc. The third floor contains offices. Enameled brick in gray tones were used for interior of the main story, with buff terra cotta trimmings and ornamental plaster ceilings. Exterior of the building is faced with buff brick and trimmed with Indiana limestone, while the frame work, floor and roof systems are of reinforced concrete, the floors being finished in terrazzo.

Train tracks are reached from the station by a midway 32 feet wide by 119 feet long, which extends over the tracks, with six stairways leading to three concrete platforms with umbrella sheds, each 1200 feet long. Six passenger car tracks are grouped in pairs between the platforms. A mail building, located 30

feet south of the main station building is 50 feet wide by 228 feet long, two stories. The first story, at track level, is 20 feet high and the second story 15 feet. Exterior walls are faced with buff brick and trimmed with terra cotta, while the interior walls are faced with enameled brick and concrete ceilings are painted with white enamel. Design, plans, engineering and supervision were in charge of E. A. Hadley, chief engineer of the Texarkana Station Trust and of the Missouri Pacific Railroad Company; E. M. Tucker, architect for the companies; Taxis & Becker, structural engineers, all of St. Louis, and A. S. Butterworth, resident engineer. The Stewart-McGehee Construction Company, Little Rock, handled general contract. Major sub-contracts were awarded as follows:

Plumbing and heating—Robinson Brothers, Pine Bluff, Ark.

Electrical work—Hensley Electric Co., Fort Worth, Tex.

Lighting fixtures—Edwin F. Guth Co., St. Louis

Face brick—Acme Brick Co., Fort Worth

Indiana limestone—Ingalls Stone Co., Bedford, Ind.

Interior enameled brick—Hydraulic Press Brick Co., St. Louis

Terrazzo floors—Standard Terrazzo Mosaic Co., Tulsa, Okla.

Ornamental iron work—Southern Ornamental Iron Works, Arlington, Tex.

Steel sash—Truscon Steel Co., Youngstown, Ohio

Hardware—Buhrman-Pharr Hardware Co., Texarkana

Millwork—Huttig Sash & Door Co., St. Louis

Terra cotta—Northwestern Terra Cotta Co., St. Louis

Marble—Southwestern Marble & Tile Co., Little Rock



New Union Station at Texarkana, Ark.-Tex.

IRON, STEEL AND METAL MARKET

Steel Demand Continues at Even Pace With Production Slightly Higher

Pittsburgh, October 6—[Special.]—Demand for steel has ceased increasing but it does not appear to be decreasing. Increases became visible about the middle of September and were regarded as inaugurating a general seasonal improvement such as usually occurs, extending well into October, hence there is disappointment that the movement has not made further progress.

Steel production is at a higher rate than in July, the increase being perhaps close to 10 per cent. This, however, gives the total steel making capacity an average engagement of no more than about 60 per cent which of course is quite unsatisfactory. There have been much greater dips in steel production, in 1921 and in the mid-portion of 1924.

Steel is doing quite as well as could be expected in view of the state of trade generally. Current production is about equal to the average rate in 1924, and say 20 per cent above the two biggest years before the war, when there was much activity all around. Evidently there is a large amount of steel consumption in a wide variety of lines which cannot be observed individually, for some of the usually large steel consuming lines are extremely dull. The automobile industry has been going from bad to worse, and accounts for hardly any steel at all. Freight car building has practically stopped, after being heavier in the first half of this year than in the first half of last. There is very little casing and other oil and gas well material being taken, but line pipe production is at capacity. Last month there was one large order for each of the three classes of pipe line, gasoline, natural gas and oil respectively. Natural gas line pipe in large tonnages is a thing of just the last few years, while gasoline lines only began to come into vogue this year.

The agricultural implement industry is taking decidedly more steel than a month ago but is unlikely to be as active in this season, making spring implements, as it was in the first half of the year, making autumn implements. Then it had help by a large export trade, but exports all along the line are running light now.

The steel trade is giving a much better account of itself as to prices. Until a month ago prices seemed to be slipping more or less constantly, sellers showing little resistance, to such an extent as to arouse suspicion that perhaps they wanted to have a tryout as to who would

survive competition. In the last month this situation was reversed. Makers of bars, shapes and plates have stabilized their markets at 1.65c for bars and 1.60c to 1.65c for plates and shapes, depending on tonnage. These are prices that for weeks were quoted as "the market" but were being shaded frequently and irregularly. Sheet mills have made a similar effort to stabilize and have had some success, but they sold too much tonnage at cut prices, with deliveries extending into the present quarter, for the movement to be considered anything like a complete success.

Late last week the American Sheet & Tin Plate Company (Steel Corporation) announced a reduction in its tin plate price, originally put out December 31, 1929, from \$5.25 to \$5.00 per base box, 100-pound cokes. The action resulted from continued shading by independents, small lots being sold at inside prices usually accorded only to the largest buyers. As an effort at stabilization the new price is made effective on contracts for the first half of the new year, a month and a half before the usual date of order book opening for the new period.

Fabricated structural steel lettings have been light for three weeks past, but such variations count for little as to operations as the shops are well filled.

Rail inquiry from four large roads is expected in the very near future. Usually the annual rail buying movement is fairly well under way by this date. Purchases are likely to be lighter than in the last three years.

Prices of Copper and Other Metals Share in General Weakness

New York, October 6—[Special.]—The non-ferrous metals were on the decline as regards prices along with many other staple commodities during the past week. The price of copper was reduced to 10 cents per pound at home and to 10.30c c. i. f. for export, the lowest prices since 1896. Lead came down after price stability for at least six weeks. Zinc prices yielded somewhat also. Tin struck the lowest levels since 1921.

In the case of copper and tin the low prices brought out some very active buying on the theory that prices had reached bottom, or were close enough there to make the metals a bargain. In the case of lead and zinc it was believed that declines had not yet run their course and hence consumers were cautious and not buying freely.

The spectacle of declining stock market and declining commodity prices was not reassuring to the business world and caused a spirit of gloom to pervade the metals. Benefits may accrue from the low prices and these will take the form of decreased production, which is most needed among the metals as among other commodities.

The steel industry is barely holding its own, both as regards rate of operations and prices. Though improvement rather than backsliding is still the keynote of the steel situation, the betterment has not been as sharp as expected.

The automobile situation is a disappointment as far as metal consumption goes. Thus the Ford Motor Co. is on a three-day-per-week basis of operations and other makers of cars are not increasing operations greatly.

Among several adverse factors the building industry stands out favorably and conspicuously. Residential building in the New York district has taken a decided spurt, while general building permits issued at Chicago recently gained very sharply. More and more non-ferrous metal consumption goes into building operations. For instance, aluminum trim for large buildings, first adopted in the East, is being taken up along the Pacific Coast. More metal objects are becoming standard equipment in housing projects such as electric refrigerators and other household utilities.

Among the minor metals weakness has become apparent. Silver has slipped back to around 35½c per ounce as against 37c a fortnight ago. Antimony at 7½c per pound is the lowest in several weeks. Platinum prices are the exception to the rule, being somewhat stronger at \$35 to \$36 per ounce for the pure grade. Quicksilver is steady at around \$113 per flask of 76 pounds after having dropped in price at the middle of September.

As October was being ushered in, copper purchasing was the briskest since July, which in turn had been the most active month since May. The feeling is quite universal that copper prices have reached bottom and there has been a good investment demand, or demand from consumers for probable needs of the future. Consumers have been trying to purchase for delivery over the first half of next year, though producers have been reluctant to sell so far ahead.

Higher prices in copper may materialize soon but more or less permanently higher levels are not expected for a time, or until surplus stocks are reduced considerably from present high totals. September copper statistics will be is-

sued at the middle of this month and are expected still to be unfavorable. It is predicted that surplus stocks will have increased 20,000 tons.

The price of copper is only one cent per pound above the low point in history, reached in 1894. However two or three commodities, such as sugar and rubber, have gone to lowest levels in the history of organized commerce and trading exchanges. Because of this historical comparison in copper and because prices are lower than costs of production for perhaps the majority of producers, depreciation being considered, it is generally believed that copper prices are at bottom.

The price of lead was reduced \$3 per ton on Wednesday to 5.35c per pound, New York, and 5.20c, East St. Louis, and further cuts are expected shortly to bring American prices well below those at London.

Zinc held fast to 4.25c per pound, East St. Louis, for many days, but began to sag at the middle of the week under the declining influence of other metals. Demand was extremely quiet.

Tin dropped to 28c per pound on Wednesday, the very day when it was announced that the world's visible supply of tin had declined 3655 tons during September to 40,150 tons, the best statistical showing this year. American tin deliveries were fairly large last month and shipments from the Far East were very moderate, thus aiding the statistical showing. The lowest tin price in 1922 had been 28½c; in 1921 the bottom price had been 25½c.

Tin consumers have been buying quite freely at the lower levels, which they believe will be temporary in view of the better statistics.

No Discernable Change in Birmingham District

Birmingham, Ala., October 6—[Special.]—The pig iron and steel markets are unchanged, iron buying is in small lots with early delivery specified in almost every instance and steel operations in the territory, including ingot production, are around 48 to 50 per cent capacity. Pig iron sales continue on the same base price in the home territory, \$14 per ton, No. 2 foundry. Concessions of \$2 and more are reported on iron purchased by consumers in other territories.

Eleven blast furnaces are in operation, with basic and foundry iron still about equal in output. Survey of the consumers indicates there are still steady requirements in sight. Cast iron pressure pipe shops are not producing as much as a few weeks ago but sentiment is strong and shop yards are kept clean

through active moving of pipe. Machine shops and foundries are doing fairly well. Furnaces are in good shape and on the least need the output can be increased.

Sheet and plate mills are operating at more than 50 per cent capacity. The new sheet mill of the Gulf States Steel Company is in position to operate almost at capacity. So far very little or no stock has been placed in the warehouse. The mill is doing nicely as is the plate mill, the first universal plate mill in the South. Shipments of cotton ties are about over, with the season in the cotton sections at its height, gins handling considerable of the staple. Light weight steel shapes, with exception of reinforcing concrete bars, are not moving as steadily as might be desired. Structural steel fabrication continues steady, the several shops making five to five and a half days time each week and turning out much tonnage. The railroads give little indication of early purchasing of their needs for the coming year. No idea is to be formed as to tonnage of rails that will be taken and

accessories remain slow until the main buying is estimated.

Reports have been current that the government, Inland Waterways Corporation, may take over the barge service of the Tennessee Coal, Iron & Railroad Company on the Warrior River, operating the several steamers and barges, including the sea-going barges and giving such service as the company gave. This includes the bringing up-stream of sulphur and oil from Texas. Consummation of this deal would remove the Tennessee Company from transportation service except among its plants.

PIG IRON QUOTATIONS

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces \$14.00; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$14.50; iron of 2.75 to 3.25 per cent silicon, \$15.00; iron of 3.25 to 3.75 per cent silicon, \$15.50.

OLD MATERIAL

Old steel axles.....	\$20.00 to \$21.00
Old iron axles.....	18.00 to 19.00
Old steel rails.....	12.00 to 12.50
Heavy melting steel.....	10.50 to 12.00
No. 1 cast.....	11.00 to 11.50
Stove plate.....	9.00 to 10.00
No. 1 R. R. wrought.....	9.50 to 10.00
Old car wheels.....	10.50 to 11.00
Old tramcar wheels.....	11.00 to 11.50
Machine shop turnings.....	7.50 to 8.50
Cast-iron borings.....	7.50 to 8.50
Cast-iron borings (Chem.).....	12.50 to 13.00
Re-rolling rails.....	12.50 to 13.50

Constructing \$1,000,000 Kraft Paper Mill



Construction is proceeding rapidly on the \$10,000,000 plant of the Southern Kraft Corporation, at Panama City, Fla., a subsidiary of the International Paper Co. Many carloads of materials are unloaded daily and worked into the various large buildings comprising the plant. Over 600 men are now engaged in these operations. Progress is being made also in building the docks and approaches, some important items of machinery and equipment being already on the ground. Although but seven months have elapsed since the first shovel of dirt was turned on the site, and the work of removing standing timber and houses was begun, noteworthy progress is in evidence. The docks are to be of concrete and steel, and will be large enough to accommodate two large ships. The photograph shows work under way on several railroad tracks leading to the docks, with men, teams and trucks engaged in the excavating operations.

AVIATION, AIRPORTS AND AIRWAYS

Air Mail Contract New York-Los Angeles

Washington, D. C.—Contract for carrying air mail from New York to Los Angeles, Cal., has been awarded by Postmaster General Brown to the Western Air Express, Inc., Los Angeles, and the Transcontinental Air Transport, Inc., New York, on a joint bid. Service on the route is to be started within 30 days and, for the present, will be maintained by daylight flying only. In addition to the terminal cities, other cities to be served by this route will be Philadelphia and Pittsburgh, Pa.; Columbus, Ohio; Indianapolis, Ind.; St. Louis and Kansas City, Mo.; Amarillo, Tex.—or from St. Louis via Tulsa, Okla., to Amarillo, either or both routes—and Albuquerque, N. M.

Airport for Dyersburg, Tennessee

Dyersburg, Tenn.—Plans are being perfected for opening the Dyersburg Airport early this fall, according to J. U. Overall, Jr., of the promotion committee. The project has been approved by state and federal officials and Marshall C. Hoppin, United States Department of Commerce, has inspected the field. Direction markers have been painted on a warehouse on the acreage, which may be used for a hangar, and an oval runway has been graveled.

Oil Company Adds to Air Fleet

New Orleans, La.—The Standard Oil Company of Louisiana has purchased an additional plane for its air fleet—a four-seater Sikorsky amphibian driven by a 300-horsepower Pratt & Whitney Wasp Junior, motor, and flown from New York by Don Rice, the company's chief pilot. According to Lieut.-Col. John H. Jouett, commander of the Standard air forces, the plane will be used in sales promotion, transportation of officials and general company activities.

Weather Reporting on Air Lines

Atlanta, Ga.—Eight additional cities on the New York-Atlanta airmail route, operated for the government by Eastern Air Transport, Inc., Brooklyn, N. Y., will be placed on the Department of Commerce teletype circuit for weather reporting, according to F. C. Hingsburg, chief engineer of the Airways Division. The added

circuit will reach from Richmond to Atlanta and will tie every city from Atlanta to Boston into the airway weather reporting service of the government. Automatic telegraph typewriters will be placed in Atlanta and Jefferson, Ga.; Anderson and Spartanburg, S. C.; Charlotte and Greensboro, N. C., and South Boston, Crewe and Richmond, Va. The new circuit will be installed as soon as possible and the machines to be used will be identical to the private teletype system already used by Eastern Air Transport. With this installation, the total of long lines for weather data collection along the mail airways will be 6,800 miles.

Baltimore on New Air Line

According to press reports, the New York, Philadelphia and Washington Air Line, owned principally by C. T. and Nicholas Ludington, Philadelphia, plans a new line to include stops at Trenton, N. J.; Wilmington, Del., and Baltimore. The new service will be devoted to passenger traffic and it is understood the company has ordered airplane equipment from the Stinson Aircraft Corp., Detroit, Mich.

New Orleans-Denver Air-Rail Service

New Orleans, La.—Daily air-rail passenger service recently announced between New Orleans and Denver by the Robertson Air Lines, will be operated over the Robertson line from New Orleans to Memphis; from there to Kansas City via the St. Louis-San Francisco Railway, and from Kansas City to Denver via the United States Airways. Air-rail service between New Orleans and Los Angeles also was announced recently.

Atlanta-Los Angeles Air Mail

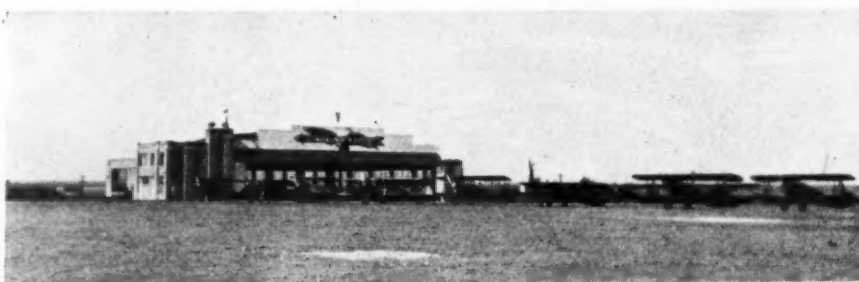
Atlanta, Ga.—Assistant Postmaster General W. Irving Glover announces that air mail service over the Atlanta-Los Angeles Southern trans-continental route will begin October 15, daylight flying only to be maintained at present. Contractors on this route are the Aviation Corporation, New York City, F. G. Coburn, president, and the Southwest Air Fast Express, Tulsa, Okla., Earl P. Halliburton, president.

Modern Airport at Amarillo, Texas

The Amarillo Airport Corporation, Harold W. English, manager, and T. Thornton Oxnard, president, recently dedicated English Field, a modern airport $7\frac{1}{2}$ miles east of Amarillo, Texas. The hangar is of brick and steel construction, with a 120-foot opening and depth of 100 feet, and 18 feet overhead in the clear. Alongside the hangar is a brick and steel structure, three stories high, providing space for offices, restaurant, sleeping quarters, etc., and a complete shop. Behind the hangar are two duplexes and two dwellings for employees.

The field has an area of 720 acres. The surface is prairie sod with natural drainage, hard and smooth. Full night-

lighting equipment, boundary lights, beacon, floodlights, hangar floods, obstruction lights, lighted wind indicator, ceiling projector, and a Neon sign reading "Amarillo" have been installed. Lighting equipment was supplied by the Crouse-Hinds Co., Syracuse, N. Y., and "Trenchlay" by the General Electric Co., Schenectady, N. Y., was used for the boundary cable. Steel was supplied by the Panhandle Steel Products Co., Wichita Falls, Texas; lumber by the Amarillo Lumber Company; brick by the Panhandle Builders Supply Co.; furniture by Sigmon Furniture Company, and plumbing by Roy Burke & Co. Harold W. English supervised construction.



Amarillo's New Airport

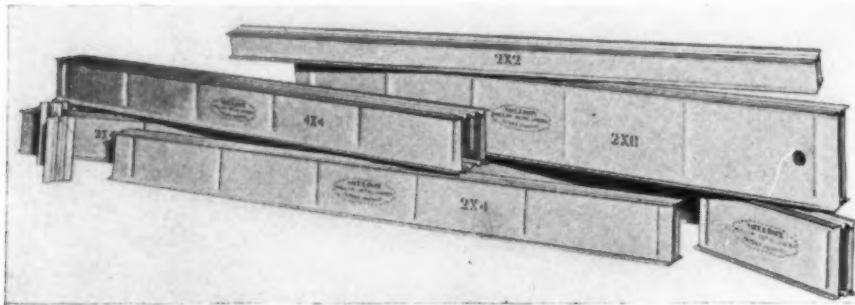
NEW AND IMPROVED EQUIPMENT

Hollow Steel Lumber

A steel framing section, light and hollow, and made from light gauge sheet steel has been invented by William O. Sheldon of Lakewood, Ohio, who describes the product as having great strength for its weight and lending itself to dwelling house construction and for building garages and portable structures, in place of the customary wooden fram-

ing lumber. It is made in the usual wood framing sizes and is formed of two pieces of steel lumber fastened securely together, producing a hollow section of any ordinary framing shape. It can be made in any length up to 100 feet. Suitable steel cleats, anchor plates and tie plates are provided so the frame of the building may be promptly assembled. It is designed for use in connection with metal lath and trim and with

steel flooring and roofing to produce a fireproof building. All parts of the frame may be spot-welded together, making a one-piece frame such as is obtained in large and heavy construction. It is the belief of the inventor that by providing suitable shapes for dwellings or for other frame buildings there will be found a steadily increasing use of steel in light construction.

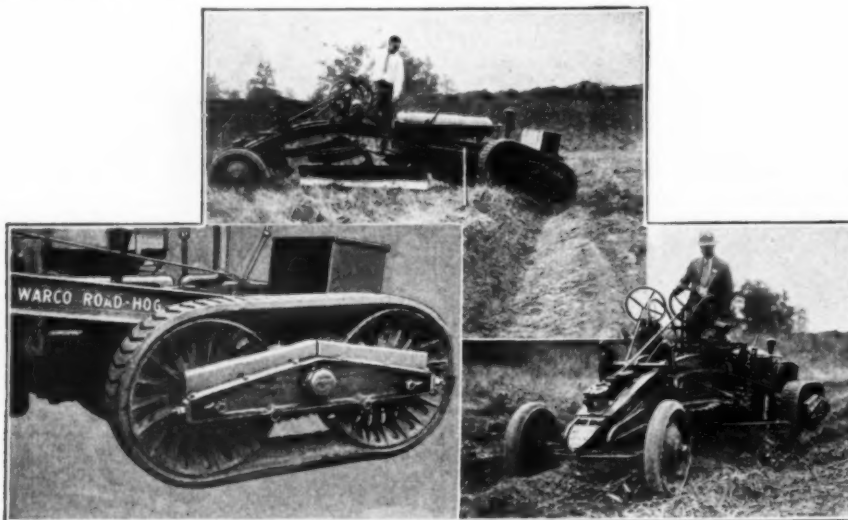


Types of Framing Shapes Now Being Manufactured

Rubber Crawler for High Speed Operations

Designed for use on tractors and for power grader service, the Warco model TR rubber crawler has been placed on the market by the W. A. Riddell Company, Bucyrus, Ohio, manufacturers of road machinery, clay working machinery, steel castings, etc. It has the same characteristics as other Warco rear-type steel crawlers, being interchangeable with either the steel crawler or with rubber tired wheels on the same tractor axle, and each crawler is free to oscillate about its axle independently

of the other. It drives both the front and rear idler wheels, making it possible to run either forward or backward with equal facility. The driving chain is of the continuous roller type and the idler wheels are adjustable, being held in tension by udyllite plated rust-proof bolts. The normal area of ground contact of the rubber crawler is 800 square inches with a normal ground pressure of 5.7 pounds per square inch, when mounted on a standard model E grader with McCormick - Deering industrial model 20 tractor, for which it is now available. It soon will be available also for application to Fordson, Case and Allis-Chalmers tractors.



Three Views of WARCO Model TR Rubber Crawler

Automatic Wind-Up for Crawler Wagons

The Austin-Western Road Machinery Co., Chicago, announces a new automatic wind-up for crawler wagons, doing by mechanical means the heavier work that taxes the workman's strength. The unit permits the tractor operator to re-



An Austin-Western Product

main in the seat and dump a heavy load by means of a lever cord. When the load goes down, the doors remain locked in open position. Clearing the pile, a second pull on the cord causes the door to shut, the operation being effected by a strong spring enclosed in a cylindrically-shaped housing mounted on the rear of the main supporting frame. The load may also be handled by a dump boss operating a cord at the side of the wagon. The unit is described as a saver of time, labor and money.

Iron and Steel Meeting

Papers of particular interest are announced for discussion at a general meeting of the American Iron and Steel Institute, to be held at the Hotel Commodore, New York, October 24. The sessions will open at 10 A. M., 2 P. M. and 7 P. M., when a banquet will be held. Among the speakers will be E. C. Bain, United States Steel Corporation; D. M. Petty, Bethlehem Steel Company; Dr. A. W. Simon, Tennessee Coal, Iron & Railroad Company, Birmingham; Stephen Badlam, Pittsburgh, Pa.; Major K. C. Appleyard, England, and Edward O'Toole, United States Coal & Coke Company, Gary, W. Va.

CONSTRUCTION DEPARTMENT

and

NEW ENTERPRISES

Covering the initial announcements of new undertakings with additional information about enterprises previously mentioned. The date at the end of an item indicates preliminary facts were given in a previous issue.

When writing to a new firm or corporation the name of at least one of the incorporators should be placed on the envelope to expedite its handling by the local postoffice. Mail may be delayed unless complete address is given.

Building and Construction Proposed and Contracts Awarded; Manufacturing, Mining, Power, and Land Developments; Public Works; Transportation; Communication; Financial Enterprises; New Business Opportunities Reported in the Sixteen Southern States.

The Daily Construction Bulletin of the Manufacturers Record gives each business day advance news published in this weekly review. It is invaluable to those requiring prompt information. Subscription price \$40.00 a year.

Airports, Airplane Plants, Etc.

Ala., Birmingham—James M. Jones, Jr., Pres., City Comsn., reported, let contract Nov. 1 for \$1,000,000 airport; plans for building waiting approval of Dept. of Commerce, Washington, include administration building, hangar and club building. 7-31

Ala., Mobile—See Water Works.

Ga., Hawkinsville—City, reported, erect fireproof airplane hangar at DeLamar field; metal construction.

La., Monroe—W. T. Simpson, 402 Filhoil Ave., West Monroe, low bidder at \$24,000, for hangar at Selman airport. 10-2

Mo., Mexico—City, reported, voted to acquire airport from Mexico Refractories Co.

Okla., Oklahoma City—Chas. S. Russell, Airport Engr., Hightower Bldg., making topography of site of 640 acres on conc. highway 7½ miles from city for municipal air terminal; when completed will make field layout and contract award for field and building construction. 9-25

Tenn., Memphis—Arran Airways, Inc., Box 125, F. E. Bruce, Pres., let contract in Oct. or Nov. for airport; construct hangar; 180x90 ft.; clubhouse, pilots quarters and swimming pool; conc. cement floors; cost of buildings \$80,000, of equipment \$24,000; S. & W. Construction Co., Shrine Bldg., Memphis, Archts.

Tex., Dallas—Chamber of Commerce, J. Ben Critz, V. P., Gen. Mgr., reported, plans \$250,000 improvements at Love Field; construct asphalt apron on north side of field, 50 ft. wide and 600 ft. long; hangars, etc.

Tex., El Paso—Div. of Supplies, Dept. of Commerce, Washington, D. C., receives bids Oct. 15 for installing lighting facilities on Big Springs-Fort Worth section of El Paso-Fort Worth Airway; work includes installation of six 24-in. electric revolving beacons, together with necessary appurtenances and accessories between Big Spring and Fort Worth, 250 miles; beacons mounted on 51-ft. or other height galv. steel skeleton towers and appurtenances will include conc. directional arrows and 10x14 ft. service sheds.

Tex., Fort Worth—Bowen Air Lines, Inc., chartered; Temple Bowen, 1317 Thomas St.

Bridges, Culverts and Viaducts

Proposed Construction

Ark., Brentwood—Washington County, J. Lona Slaughter, Judge, Fayetteville, plans 58-ft. treated timber bridge.

Fla., Inverness—Citrus County Commrs. opens bids Oct. 20 for bridge over Withlacoochee River, 500 ft. long.

Ga., Augusta—Atlantic Coast Line R. R., J. E. Wilmoughby, Ch. Engr., Wilmington, probably start work in 1931 replacing trestle of Charleston & Western Carolina Ry. Co., L. W. Funk, Asst. Engr., Augusta, a subsidiary; \$60,000.

Kentucky—See Roads, Streets, Paving.

Ky., Bellevue—Chesapeake & Ohio Ry. Co., C. W. Johns, Ch. Engr., Richmond, Va., advises nothing definite decided regarding building \$88,000 underpass under tracks, Pendleton Ave. 9-25

Ky., Henderson—Indiana State Highway Comsn., Fred Kellam, Asst. Ch. Engr. in charge of Structures, Indianapolis, Ind., opens bids Oct. 28 and Oct. 30 for 4 sections of Evansville-Henderson bridge over Ohio River, under 4 contracts; 5 main piers on solid rock 80 ft. below water surface; main spans; piers and abutments for balance of approaches and for steel superstructure and conc. floor; 2 projects, special structure for water passage and for grading and paving embankments to be advertised later.

La., Shreveport—Gov. Huey P. Long, Baton Rouge, reported, announced survey work on bridge over Red River being started at once and bids will be asked about Dec. 1.

Maryland—State Roads Comsn., L. H. Steuart, Sec., Baltimore, opens bids Oct. 14 for repairs to slab bridge over Brooks Run, road, Leonardtown to Hollywood, St. Mary's County, SM-75-811.

Maryland—See Roads, Streets, Paving.

Maryland—State Roads Comsn., L. H. Steuart, Sec., Baltimore, applied to U. S. Engr. Office, Navy Bldg., Washington, D. C., for permission to build bridge over Neals Sound, mainland to Cobbs Island.

Baltimore—City, Nathan L. Smith, Highways Engr., start building bridge over Gwynn's Falls, Baltimore St., in spring.

North Carolina—State Highway Comsn. has low bids for 2 bridge projects. See Roads, Streets, Paving.

Oklahoma City—Oklahoma County, J. F. Frazier, County Engr., opens bids Oct. 14 for \$55,000 Reno Ave. underpass on St. Louis-San Francisco Ry. 10-2

Okla., Coyle—State Highway Comsn., A. R. Losh, Engr., Oklahoma City, opens bids Nov. 6 for bridge over Cimarron River, State Highway 33, to replace permanent structure; 11 pony trusses of 86 span with 22-ft. roadway, rein. conc. floor. 8-21

S. C., Awendaw—State Highway Comsn., Ben M. Sawyer, Ch. Commr., Columbia, applied to U. S. Engr. Office, Charleston, for permission to build bridge over Awendaw Creek, 0.7 ml. south of Awendaw; treated timber substructure, deck to consist of conc. rail and slab on steel I-beams.

Tenn., Knoxville—Knox County Highway Comsn. directed Roads Supt. to call for bids on \$10,000 bridge, Flat Creek on Corryton-Knoxville mail route; also for repairing superstructures on bridges to cost \$7000; agreed to do share on approaches and surfacing at underpass at Mt. Olive to be built by Louisville & Nashville R. R. Co., W. H. Courtenay, Ch. Engr., Louisville, Ky.

Tenn., Memphis—City, Watkins Overton, Mayor, D. C. Miller, Clk., plans bridge over Missouri Pacific tracks, Lauderdale St.; Wm. B. Fowler, City Engr.

Texas—See Roads, Streets, Paving.

Texas—State Highway Comsn. receives bids for 2 bridge projects.

Tex., Fort Worth—Tarrant County, W. E. Yancey, Auditor, has low bid from L. T. Stanford & Son, 1217 St. Louis St., at \$39,906, for bridge 36 ft. wide, Stove Foundry road.

West Virginia—State Road Comsn., C. P. Fortney, Chmn., Charleston, opens bids Oct. 28 for 3 bridge projects: Pleasants-Wood Counties—Bull Creek bridge, 130-ft. span

steel through truss on conc. substructure; Ritchie County—Beatrice Bridge approaches, grading and gravel surfacing; Tyler County—Correll Run bridge approaches, grading and gravel surfacing.

West Virginia—State Bridge Comsn., A. C. Kimpel, Sec., Charleston, indefinitely postponed building bridge over Kanawha River, St. Albans. 9-11

W. Va., Ceredo—State Road Comsn., C. P. Fortney, Chmn., plans bridge over Twelve Pole Creek here as link in Huntington-Big Sandy Highway.

Contracts Awarded

Ala., Birmingham—City, A. J. Hawkins, Engr., let contract to Christie, Hutchinson & Burton, 502 N. 21st St., at \$11,640, for bridge over Valley Creek, S. Park Rd. 9-25

Ark., Garland City—State Highway Comsn., C. S. Christian, Engr., Little Rock, and Kansas City Bridge Co., Orear-Leslie Bldg., Kansas City, Mo., Gen. Contr., reached agreement to start work at once rebuilding center span of bridge over Red River, recently destroyed by blast at \$150,000 to \$250,000 loss. 9-11

Kentucky—State Highway Comsn., H. D. Palmore, Engr., Frankfort, let contracts for bridge over Cumberland River, Smithland: Substructure, Dravo Contracting Co., Neville Island, Pittsburgh, Pa., \$147,470; superstructure, Nashville Bridge Co., Foot of Shelly Ave., Nashville, Tenn., \$212,862. 9-25

Miss., Kosciusko—Highway Comsn. of Salis-McAdams-Bodone Separate Road Dist. Atalla County, let contracts to Lynn Gravel Co., Avalon and Hester & Sanders for graveling 12 ml. road.

Okla., Altus—Jackson County Commrs. let contract for 3 80-ft. steel truss and 8 25 ft. timber approach span bridge over Turkey Creek, State Aid Proj. 646-B, Mackey & Hopper, National Bank Bldg., Oklahoma City, \$27,558.

South Carolina—State Highway Comsn., Ben M. Sawyer, Ch. Commr., Columbia, replace bridge at Yarbrough's Mill over Enoree River, State Highway 15, with steel structure with own forces on force account basis.

Tenn., Knoxville—Wilson-Weesner-Wilkinson, 202 W. Morella Ave., has \$70,000 contract for rein. bars for Henley St. bridge, bars to be made by Knoxville Iron Co., Lonsdale; Riverside Lumber Co., 302 W. Front St., has contract for preliminary timbers; Hot Blast Coal Co., 742 Western Ave., hauling; Tennessee Mill & Mine Supply Co., 444 State St., and C. M. McClung & Co., W. Jackson Ave., have contracts for other materials; Booth & Flinn, Gen. Contr., 1924 Forbes St. Pittsburgh, Pa. (Contract noted let 9-18)

Texas—See Roads, Streets, Paving.

Tex., Gainesville—Lone Star Gas Co., 1915 Wood St., Dallas, let contract to Southwest L. E. Meyers Co., Allen Bldg., Dallas, for bridge over Red River at approx. \$52,500; Matthews & Kenan, Engrs., Smith-Young Tower, San Antonio.

West Virginia—State Bridge Comsn., A. C. Kimpel, Sec., let contracts for 2 bridges: Brooke County—Cove bridge, Proj. 3114-B, Keely Construction Co., Charleston, \$20,077; Greenbrier County—Caldwell overhead bridge 1226, Proj. Monty Bros., Charleston, \$15,984. 8-14

Canning and Packing Plants

Fla., Alva—Caloosahatchee Valley Growers, Inc., F. M. Adams, Pres., reported, plans rebuilding burned citrus packing plant.

Fla., Arcadia—J. A. Christ has contract for vegetable packing plant for DeSoto Co-Operative Assn.; frame, corrugated iron.

Fla., Wauchula—Wauchula Ice & Canning Co., L. A. Bryant, plans establishment of ice plant, canning and preserving plant; has tract of 1 acre and building containing equipment; will install \$10,000 equipment.

Fla., Winter Garden—Southern Fruit Distributors, Inc., constructing addition to packing plant; fireproof; 60 x 110 ft.; conc.

Tex., Mission—Texas Citrus Fruit Growers Assn., reported, plans 80x90-ft. addition to Sharyland plant.

Coal Mines and Coke Ovens

Va., Clarendon—Arlington Coal Corp., capital \$50,000, incorporated; James A. Councilor, Tower Bldg., Washington, D. C.

Cotton Compresses and Gins

Ala., Gadsden—W. H. Brown, Inc., organized; H. H. Brown, W. J. Lasseter.

Drainage, Dredging and Irrigation

Fla., Jacksonville—U. S. Engr. Office, Florida Theatre Bldg., opens bids Nov. 1 for dredging approx. 3,406,000 cu. yd., place measurement, Indian River portion of Intracoastal Waterway, Jacksonville to Miami.

Ga., Albany—U. S. Engr. Office, Montgomery, Ala., plans dredging Flint River; \$56,000.

Miss., Indianola—Comms. of Beaver Drainage Dist. of Sunflower County, Offices of Moody & Johnson, Bank of Indianola Bldg., let contract to George S. Funk, Shelby, Miss., for drainage work at 12 cents per cu. yd., for which \$65,000 bonds have been voted; Horace S. Stansel, Engr., Ruleville. 9-11

Tex., Sinton—San Patricia County votes Oct. 18 to establish San Patricia County Drainage Dist. No. 3 and to approve \$30,000 bonds.

Va., Richmond—City, Dept. of Public Works, authorized by U. S. Engr. Office, Norfolk, to remove Trigg Shipyard coffer dam from city harbor to depth of 8 ft. below mean low water; soon call for bids. 7-24

Electric Light and Power

Electric light and power work in connection with many LAND DEVELOPMENT operations involves the expenditure of large sums of money. See that classification for details.

Ala., Anniston—Alabama Power Co., Birmingham, reported, soon begin work on substation, duplicate of West Anniston plant, on former site of Anniston Steel Co.; branch stations also authorized for Anniston Mfg. Co.'s plant car barns on Sixth St. and remodeling West End and E. Eleventh St. plant and office.

Ark., El Dorado—Arkansas Power and Light Co., Pine Bluff, reported, rebuild Donan electric transformer station; double capacity; install 3334 kv-a., 110,000 volt transformers; expend \$65,000.

Ga., West Point—Georgia Power Co., Atlanta, reported, acquired Adamson water power site near West Point for possible hydro electric development.

Miss., Crystal Springs—City soon let contract for building for water and light plant.

Missouri—Empire District Electric Co., 414 Joplin St., filed application with State Public Service Comsn., Jefferson City, for approval of construction of dam across White River at Table Rock, Taney County; company has acquired 10,640 acres for project and proceeded with engineering work in connection with enterprise.

Mo., Richmond Heights, St. Louis—Shaw & Francis, 1010 Olive St., St. Louis, reported, let contract to Burke Electrical Co., 3963 Forest Park Blvd., St. Louis, for street lighting system, underground wires, etc., at Lake Forest subdivision; cost \$30,000.

S. C., Aiken City—Frank P. Henderson, Mayor, investigating cost of installing Diesel engines at pump station to supply city with power for pumping water and street lights.

Texas—Central Power and Light Co., San Antonio, reported, applied to Federal Power Comsn., Washington, D. C., for license for hydro electric development in Guadalupe River affecting lands in DeWitt and Victoria counties; equip dams with locks for navigation; M. C. Tyler, Washington, Ch. Engr. of Comsn. 9-25

W. Va., Boncar—Combustion Engineering Corp., 200 Madison Ave., New York, announced contract from West Virginia Hydro-Electric Co., Charlottesville, Va., subsidiary of Union Carbide & Carbon Co., Carbide & Carbon Bldg., New York, amounting to approximately \$500,000 and covering 2 pulverized coal fired boiler units, to be installed at Boncar; equipment comprising contract includes 2 Walsh-Weldner single pass, sectional header boilers, interdeck Elesvo superheaters, boiler and furnace settings, fin tube walls for 4 sides of each furnace and plain tube water screens for furnace bottoms, pulverized fuel burning equipment, duct work and supporting steel; will be a mine mouth plant, utilizing coal taken direct from tipple; boilers are of high single-pass construction providing for most effective use of natural draft, and are designed for 488 lbs. pressure, with an operating pressure of 450 lbs. and a superheated steam temperature of 750 deg. Fahr.; each boiler will have 31,500 sq. ft. of heating surface with an additional 4140 sq. ft. per unit provided by fin tube walls and water screen; units guaranteed for continuous capacity of 287,500 lb. of steam per hr. and maximum capacity of 325,000 lb. steam per hr.; Ford, Bacon & Davis, Inc., Consult. Engrs., 39 Broadway, New York.

Fertilizer Plants

Miss., Hattiesburg—Moselle Plant Food Co., Moselle, reported, acquired building and site near N. Main St., for fertilizer plant.

Flour, Feed and Meal Mills

Ga., Brunswick—Strickland Milling Co., incorporated; Carl S. Strickland, Brunswick; continue established plant at 1006 Bay St.

Foundry and Machine Plants

Ala., Birmingham—Crane Co., 2 S. Twentieth St., reported, let contract to Southern Steel Works, 908 Lucien Ave., for 200 tons of fab. struc. steel for foundry and pattern shop.

D. C., Washington—Mechanical Engineering and Construction Co., Mills Bldg., Washington, D. C., has contract for improvements to brass foundry, Navy Yard. 9-25

S. C., Greenville—Greenville Steel & Foundry Co., 120 Markly St., increased capital \$30,000 to \$60,000.

Tex., Wichita Falls—Wictex Machinery Co., capital \$30,000, incorporated; J. S. Bridwell, City Natl. Bank Bldg.

Garages and Filling Stations

Ark., Pine Bluff—Quinn and Quinn, will probably receive contract for filling station at Fifth and State Sts. for Firestone Service Stores, Inc., 17th and Main St.; cost \$15,000.

Ky., Paducah—Spradling Auto Tire Co., capital \$200,000, incorporated; T. H. Spradling, 614 Clay St.

D. C., Washington—G. W. Forsberg, Eighth and Water Sts., erect \$10,000 filling station, 51-53 and 55 Massachusetts Ave.

D. C., Washington—Samuel J. Prescott Co., Inc., 814 Thirteenth St., N. W., has contract for gasoline service station for G. W. Forsberg, Eighth and Water Sts., S. W.; install general gasoline service equipment; A. S. J. Atkinson, Archt., 3801 Macomb St., N. W.

Md., Baltimore—Sherwood Bros., Baltimore Trust Bldg., working on plans for 1 story, brick filling station, Reisterstown Rd. and Garrison Ave.

Md., Baltimore—Wm. L. Donohue, Donohue Home Building Co., Lexington Bldg., construct garage, 1210 Loney's Lake; brick, 1 story.

Md., Hagerstown—Sherwood Bros., Baltimore Trust Bldg., Baltimore, considering erection of oil distributing plant.

Mo., Kansas City—Garlock Garages, Inc., capital \$22,000, incorporated; R. E. Garlock, 3912 Troost Ave.

Mo., Kansas City—Hallburton Chevrolet Co., capital \$17,000, incorporated; Carl B. Benson, 2029 Swift St.

Mo., St. Louis—Square Deal Oil Co., incorporated; W. G. B. Carson, 7006 Maryland Drive.

N. C., Raleigh—C. C. Motor Co., capital \$100,000, incorporated; Penn Marshall, 1813 White Oak Rd.

S. C., Pageland—Pageland Chevrolet Co. incorporated; Joe Smith, C. M. Tucer.

Tenn., Memphis—Pennsylvania Service Stations, Inc., 1074 N. Second St., chartered; Samuel O. Bates, Columbian Mutual Tower.

Tex., Corpus Christi—Dielmann and Levy, State Natl. Bank Bldg., drawing plans for 1 story service building Starr and Water St., to be occupied by H. N. Hoseny; H. R. Sutherland, Nixon Bldg., Owner; cost \$20,000.

Tex., Crystal City—Andrew Smyth, Uvalde, having plans prepared by Will H. Noonan Co., Builders Exchange Bldg., San Antonio, for 1 story, rough stone wall, tile roof filling station.

Gas and Oil Enterprises

Fla., DeLand—Standard Oil Co., reported, construct storage plant with capacity 180,000 gal. Michigan and Delaware Aves.

Ga., Atlanta—Standard Oil Co., 746 Marietta St., reported, let contract to Flagler Co., Red Rock Bldg., for 1-story addition to oil storage plant; cost \$40,000.

Ga., Atlanta—W. S. Loftis, 45 Mangum St., erect garage and sales room, 361 Moreland Ave., N. E., for Pratt Motor Co., Inc.; 1 story, brick walls; compo. roofing; cost \$15,000.

Ky., Barbourville—Peoples State Gas Co., organized as subsidiary of Petroleum Exploration Co.; acquired Barbourville Supply Co.; plans installation of gas system at Corbin; applied for gas franchises at Somerset, Pineville and Middleboro; construction of gas pipe line started from Petroleum Exploration Co.'s Indian Creek field to Corbin.

La., Franklin—J. D. Shaw, Field Engr. for Moody-Seagraves Corp., Esperson Bldg., Houston, Tex., reported, having survey made for main pipeline for natural gas from Kirbyville, Tex., to Franklin, La.; Val E. Smith, Lafayette, La., Merrill Bernard, Crowley, and F. Shuttles & Sons, 921½ Ryan St., Lake Charles, Engrs. 8-21

La., New Orleans—Sinclair Refining Co. of La., Inc., Mereaux, reported, acquired 27 oil filling stations of independent companies; plan increasing holdings to 50 stations; also acquired St. Bernard Oil Co. with 10 service stations and bulk plant and Shreveport Oil Co. with 8 stations.

La., New Orleans—Chalmette Petroleum Corp., Union Indemnity Bldg., has plans in progress by Andrew M. Lockett, Jr., Archt., Balter Bldg., for construction of 2 story laboratory building at Chalmette; 32x48 ft.; rein. conc. floor; hollow tile; asbestos shingle roof; cost \$10,000.

La., Shreveport—Texas Louisiana Production Co., reported, making survey of right-of-way for construction of 14-in. pipe line from Pine Island to point southwest of Rodessa; 13 miles long.

La., Shreveport—Henry L. Doherty & Co., fiscal agents of Cities Service Co., both 60 Wall St., New York, reported, announced purchase of controlling interest in Louisiana Oil Refining Corp., First Natl. Bank Bldg., Shreveport, for account of Arkansas Natural Gas Corp., a Cities Service subsidiary.

Md., Baltimore—Shell Eastern Petroleum Products, Inc., Court Square Bldg., will erect filling station, Harford Rd. and Wisteria Ave.; cost \$10,000; Northeastern Construction Co., 6 W. Madison St., Contr.

Md., Baltimore—Lord Baltimore Filling Stations, Inc., American Bldg., has plans nearing completion for 2 filling stations, Belair Rd. and Parkmont Ave., and 33rd and Old York Rd.; 1 story, brick and stucco.

Md., Rockville—Washington Gas Light Co., 411 Tenth St., N. W., Washington, D. C., reported, install 12 miles gas mains at cost of \$60,000.

Miss., Amory—Mississippi Natural Gas Corp., W. Rawson Collier, V. P. and Gen. Mgr., Watts Bldg., Birmingham, Ala., announces acquisition of Amory Natural Gas Co., operating gas distribution system in Amory; for the present there will be no change in the corporate name of Amory Natural Gas Co.; arrangements have been perfected whereby company has become interested in Amory Petroleum Co., owners of 40,000 acres land, with producing wells now supplying natural gas for Amory distribution system; plans under way, distribution being installed and construction of pipe line from Amory to Tupelo, Okolona and Aberdeen will be carried forward without delay; program involves large expenditure. 9-18

Mo., Alva—Bodine Machinery Co., reported, construct 3 tanks with total storage capacity of 37,000 gal. at plant recently acquired from United Iron Works.

Mo., Ava—Brown Oil Co., J. O. Brown, Cabool, reported, construct \$12,000 bulk station.

Mo., St. Louis—Mackel-Moss & Wayne, Inc., chartered; Ray F. Moss, 50 Lewis Place.

Mo., Union—Franklin County Oil Co., incorporated; F. C. Danz, Washington; P. A. Smith.

N. C., Durham—Lucky Motors, Inc., capital \$25,000, chartered; S. P. Alexander, Forest Hill St.

Oklahoma—Mid-Continent Petroleum Corp., Tulsa, Okla., and 1125 Calvert Bldg., Baltimore, Md., advises company acquired a 20% interest in Great Lakes Pipe Line Co., which company will construct pipeline for transportation of gasoline from refineries in Oklahoma and Kansas to Kansas City, Omaha, Des Moines, St. Paul, Minn., and Chicago; other companies interested in construction of line are Continental Oil Co., Ponca City; Barnsdall Corp., Petroleum Bldg., Tulsa; Skelly Oil Co., Skelly Bldg., Tulsa; Pure Oil Co., Pure Oil Bldg., Chicago, Ill., and Phillips Petroleum Co., Bartlesville. 10-2

Okla., Muskogee—Charles Grosscurth, Havana, Cuba, reported, acquired Muskogee Natural Gas Co.

S. C., Greenville—Webb Oil Co., capital \$15,000, incorporated; J. M. Waddell, 15 E. Earle St.

Tex., Dallas—Matthews & Marion, Inc., chartered; Raymond Marion, 727 Cantegral St.

Tex., El Paso—Henry Seggerman, 2005 Montana St., reported, construct commercial building Texas and Palm Sts., to be occupied by Bush Motor Co.; cost \$18,000.

Tex., Hallettsville—Humble Oil & Refining Co., Humble Bldg., Houston, reported, construct \$20,000 filling station Highway No. 2.

Tex., Pampa—Warner Oil Co., capital \$100,000, incorporated; Eben D. Warner, Denver, Colo.; John B. Cook.

Tex., Refugio—Southern Drilling Co., incorporated; Lauren L. Smith, C. P. Russell.

Tex., San Angelo—Charles M. Cope, Inc., chartered; C. M. Cope, P. G. Reed.

Tex., Taylor—Taylor Production Co., capital \$25,000, incorporated; Robt. T. Piner, Big Springs; J. M. Lille, San Angelo.

Tex., Temple—Texas & Pacific Coal and Oil Co., Fort Worth Natl. Bank Bldg., Fort Worth, reported, plans \$500,000 refinery, 4 unit, initial capacity 5000 bbls. daily.

Va., Alexandria—W. M. Russell, Ch. Engr., Washington Gas Light Co., 413 Tenth St., N. W., Washington, D. C., advises Alexandria Gas Co. has been incorporated to take over Municipal Gas Works and general management of company will be handled from Washington office; at present time do not intend to build new plant, but will probably install high pressure pipe line connecting the Alexandria territory with that of Rosslyn Gas Co., which in turn is supplied by high pressure from Washington; in making this connection the company will develop intervening territory with distribution lines; work probably done in spring; in somewhat distant future it is proposed that a large byproduct coke oven plant be built in or near Alexandria for purpose of supplying this general territory with gas service and byproduct coke for domestic and technical purposes; no plans drawn in this connection. 10-2

Va., Franklin—Town granted to Franklin Gas Utilities, Inc., franchise for manufacture and sale of gas for fuel and heating purposes; system to be distributing product June, 1932; system will be owned and controlled by Franklin Gas Utilities, Inc., to be organized under Virginia laws, with capital of 20,000 shares, Class A, non-voting stock and 5000 share of Class B voting stock; J. A. Pretlow, Pres. and Gen. Mgr.; G. Hubbard Massey, Consol. Engr., Dixon Bldg., Norfolk, has provided engineering service in design of system and will supervise construction; contracts are expected to be awarded for following on and after Oct. 15th and bids may be addressed at office of J. Ponsaing, office of Arthur R. Vail, 49 Wall St., New York; contemplate using (butane gas) process plant of Plutonium Co., General Motor Co. Bldg., Detroit, Mich.; estimated cost of plant, equipment and distribution system, \$86,533. See Want Section—Machinery and Supplies.

W. Va., Charleston—Union Oil and Gas Co., incorporated; E. G. Johnson, 2206 Washington St.

W. Va., Logan—Gulf Refining Co., Port Arthur, Tex., reported, construct \$100,000 oil and gasoline storage plant, as auxiliary to storage plant to be built at Huntington; also erect service stations.

Ice and Cold-Storage Plants

Tex., Taylor—A. C. Clausnitzer, New Braunfels, reported, erect ice plant, Kimbro St.

Land Development

Fla., Coral Gables—Lowell Holding Co. incorporated; I. P. and B. P. Wyman.

Fla., Fort Myers—Fort Myers Farm Products, Inc., Charles McAlpin Pyle, 11 W. 42nd St., New York, Pres.-Treas.; S. H. Rogers, Sec.; interested in development of Italian colonization program at Fort Myers.

Fla., Lakeland—Scott Lake Corp. incorporated; S. C. and W. A. Ripkin.

Fla., Miami—Pearland Realty Investment Co. incorporated; O. G. Lindsey, 1645 N. W. 36th St.

Fla., Miami Beach—City, J. B. Lemon, Director of Recreation, reported, expend \$1,500,000, covering 5 yr., for development of 33 acre Flamingo Park, including facilities for football, etc.; will enclose entire area; erect club house and 6 clay courts, swimming pool, etc. 6-12

Fla., Tampa—Pease Co. incorporated; O. E. Pease, 1110 Marion St.

Fla., West Palm Beach—Town of Palm Beach, James M. Owens, Council Pres., reported, acquired lake front south of Royal Palm Way; plan development of permanent park.

Ky., Louisville—James A. Marneres, Henry Clay Hotel, reported, acquired 317 acres on Brownsboro Rd.

Ky., Lexington—City will remodel building on 30 acre tract recently acquired for park as community center and shelter house; L. Segoe, Consol. Engr. and City Planner. 10-2

Mo., Baltimore—Perry Point Land Co., 1328 Munsey Bldg., incorporated; T. Bayard Williams, John D. Taylor.

Mo., Kansas City—Oakwood Realty Co., capital \$25,000, incorporated; Robert M. Coleman, Gloyd Bldg.

Mo., Shell City—Jarvis Land Co. incorporated; J. B. Wade, T. A. Dade.

Mo., St. Louis—Lanham Realty & Investment Co. incorporated; E. H. Schwartz, 311 S. Elm St.

Mo., St. Louis—Hill-Crest Country Club, incorporated; Edwin D. Franey, 506 Olive St.

N. C., Albemarle—Albemarle Holdings and Investment Co., Inc., capital \$50,000, incorporated; G. D. B. Reynolds, W. E. Bogle.

N. C., Charlotte—Lombardy Realty Co., capital \$40,000, incorporated; T. B. Spratt, Fort Mill, S. C.; R. E. Agnew, 26 E. Fourth St., Charlotte.

N. C., Greensboro—Dunbar Realty Co., Inc., capital \$50,000, incorporated; W. F. Taylor, 1105 Gortall St.

N. C., Tarboro—Martin & Co., Inc., chartered; R. A. Martin, Henry C. Bourne.

N. C., Wilmington—Wm. L. De Rossett, 101 S. Third St., reported, has contract for improvements at U. S. National Cemetery, including construction of gates, entrances and laying new walks.

Tex., Jacksonville—Jacksonville Realty Corp., capital \$30,000, incorporated; Sam A. Cobb, W. H. Brown.

Tex., Laredo—Escobas Oil Corp., capital \$50,000, incorporated; A. L. Edgington, W. R. Blackpear.

Tex., Laredo—Trevino Oil Corp., capital \$100,000, incorporated; Gordon Gibson.

Tex., Port Isabel—See Sewer Construction.

W. Va., Bluefield—Woodlawn Memorial Park Corp., Carroll R. Woods, Pres., Whitehorn St., develop cemetery on Bluefield-Bramwell Rd.

Lumber Enterprises

Tex., Uvalde—Mayhew Lumber Co. increased capital to \$500,000.

Metal-Working Plants

Va., Richmond—American Can Co., 120 Broadway, New York, operating plant on Venable St., reported, completed purchase of 2 tracts of land in South Richmond, just off Petersburg Pike at Everett St.; work on plant will probably not begin for several months. 3-27

Mining

Mo., Kansas City—Mines Chat Co., capital \$16,000, incorporated; J. Fred Willingham, Carthage.

Tenn., Charleston—H. H. Rhodes, Pres., Wil-Ten Mining Co., advises plans opening extensive lead operation in Bradley County; are installing smelting system to refine and recover all contents of complex ores, consisting of lead, barium, silver, cadmium, antimony, etc.; installation will consist of series of Diesel oil engines, direct connected to generators; power plant will consist of some 2000 kv; plant will also be equipped to mine and prepare for smelting about 2000 tons of quartz per day. 10-2

Miscellaneous Construction

Arkansas—War Dept., Washington, will expend approx. \$500,000 for revetment and bank protection work, Happy Valley; work to be done with government equipment.

Fla., St. Augustine—City Comsn., C. S. Coe, City Mgr., let contract to Nye Odorless Incinerator Corp., Albany, Ga., at \$35,915, for incinerator.

Ga., Savannah—U. S. Engr. Office let contract to MacDougald Construction Co., Peachtree Bldg., Atlanta, for shore protection work, eastern shore, Ft. Screven reservation, Tybee Island. 9-11

Ky., Ludlow—City Council passed ordinance to vote in November on \$30,000 incinerator bonds.

La., New Orleans—Bd. of Commrs. of Port of New Orleans has plans completed by Engineering Dept. for constructing series of piers, slips and warehouses on Industrial Canal to cost several million dollars, work on first 2 units probably start before end of 1930; slips will be dredged back into land at approx. angle of 45 degrees, 30 ft. deep and wide enough for 2 ocean liners to enter side by side, to be 1600 to 2299 ft. long, providing 2, 3, 4 or 5 ships simultaneous docking; 5-story conc. and steel warehouse to be erected down center of piers to accommodate loading and unloading operations, gives storage space and expedite shipping.

La., Shreveport—Caddo Levee Bd. construct new levee along Red River in southern suburb of city.

Louisiana—U. S. Engr. Office, Second New Orleans Dist., foot of Prytania St., New Orleans, has low bids from Howard Kenyon Dredging Co., 3603 McKinney Ave., Houston, Texas, at \$10.70 cents per cu. yd. for 480,000 cu. yd. levee and enlargement, Hathorn Levee and 264,000 cu. yd. new levee, Roxana Levee. 9-11

Mississippi—U. S. Engr. Office, Vicksburg, let contract to L. W. and C. E. Powers, Georgetown, for 35,000 cu. yd. earthwork, Sections B and C above Rosedale.

Missouri—U. S. Engr. Office, McCall Bldg., Memphis, Tenn., let contract to Woods Bros. Construction Co., Lincoln, Neb., for 850 lin. ft. crib dikes, Mississippi River, Baders. 9-18

Mo., Kansas City—City, H. F. McElroy, Mgr., soon start constructing 2 wharves; construct river freight terminal on Woods-weather site, near state line, to meet requirements of Inland Waterways Corp.; Matthew S. Murray, Dir. of Public Works, instructed to prepare plans for rehabilitating Main St. wharf. 10-10-29

Mo., Sibley—U. S. Engr. Office, Postal Telegraph Bldg., Kansas City, opens bids Nov. 3 for constructing about 10,670 lin. ft. standard pile clump dikes and about 9040 lin. ft. standard revetment, Missouri River, Jackass, Fishing River and Fire Creek Bends, near here.

Mo., St. Louis—Stanza & Co., Inc., Syndicate Trust Bldg., break ground in few days for 1000-tomb unit to Oak Grove Memorial Mausoleum; entire exterior to be granite with carvings; all crypts and structural parts to be of rein. conc., produced with Marquette super-cement, interior of marble with stained glass windows and bronze decorations, handwrought bronze gates.

N. C., Charlotte—City plans \$25,000 swimming pool.

Miscellaneous Enterprises

Ala., Mobile—Haas-Davis Packing Co., 14 Southern Market, reported, acquired plant and equipment of A. D. Davis Packing Co., on Conception St. Rd.

Ala., Montgomery—Alabama-Georgia Syrup Co., expending \$70,000 for plant improvements North Montgomery; erect 2 story, brick and conc. storage plant as addition to present building Jones and Proctor Sts.; cost \$30,000; Jehle Brothers, Shepherd Bldg., Montgomery, has contract; Walter Ausfeld, Archt., 31 Finley Curve.

Ark., Arkadelphia—Siftings Herald, reported, let contract to U. G. Kaufman, for commercial building; 1 story; 25x85 ft. 8-21

Ark., Texarkana—Butter Nut Bread Co., Tenth and State Line Sts., reported, plans \$100,000 baking plant; brick; 2 story.

Florida—Celo Co. of America, Pierce and Polk Sts., Tampa, advises bottling plant at Miami will be operated by W. C. Zickgraf, temporary address 174 N. E. First St., Miami, will operate under name of Celo Miami Co.; machinery purchased; B. F. Ray will operate plant at Daytona Beach under name Celo Bottling Co. of Daytona; machinery purchased; Clause, Varn and Scott will operate plant at Sanford; machinery purchased. 9-18

Fla., Miami—Argonaut Realty Corp., subsidiary of General Motors Corp., Detroit, Mich., reported, has plans by company's engineers and receiving bids from Wm. F. Bonsack, 328 Lincoln Road, Miami Beach, Jesse P. Monte, 8238 N. E. Ninth Ave., and J. P. Nelson, 55 N. E. 46th St., for testing laboratory; cost \$10,000; 2 buildings; 30x30 ft. and 30x50 ft.

Fla., Quincy—Havana Florida Cigars Co., chartered; H. E. Corry, E. S. Blake.

Georgia—Ceresine International Products Co., Inc., Wade Moss, V. P., temporary headquarters Columbus, Ga., closed contract with Maryland Metal Building Co., McComas and Race Sts., Baltimore, Md., for first unit, 160x50 ft., of a four unit plant to be built at either Warm Springs or Durand for manufacture of face powder from clay mined near Warm Springs.

Ga., Atlanta—B. F. Coggins, Candler Bldg., and W. H. Allen, owners of Commonwealth Marble & Granite Co., Etowah Monument Co., National Marble and Granite Co., Inc., Universal Monument Co., Wholesale Granite Co., and Berkley Granite Co., reported, rebuilding plants on Confederate Ave., burned at loss of \$200,000; fireproof, sheet iron and steel.

Ga., Atlanta—Brazell, Miller & Newbanks, Inc., Norris Bldg., has contract for alterations and remodeling building for Alco-Gravure, Inc., at N. W. Cor. Hunter and Piedmont Sts.; 2 story, rein. conc.; install electrical elevator, press room equipment, boiler room, etc.; cost \$25,000.

Ga., Savannah—Coastal Coffee Co., capital \$12,000, incorporated; R. L. Schley, Liberty Bank & Trust Bldg.; establish plant.

La., Monroe—George J. McHugh, Independence, Kansas, reported, plans establishing chicken hatchery.

La., New Orleans—Art Craft Ink Co., A. S. Johnston, 2525 Wisteria St., reported, leased 4-story brick building for manufacturing plant.

Md., Baltimore—Lloyd E. Mitchell, Inc., 915 E. Monument St., having plans completed for office and shop building, 25th St.; brick, 62x140 ft., 2 story, fireproof, metal windows, slag roof, conc. floors; Henry G. Perring, Engr., Court Square Bldg.

Miss., Bay St. Louis—Smith & Norwood, Architects, Gulfport, reported, has plans ready for bids for reconstruction of portion of Echo newspaper building.

Miss., Hattiesburg—Hattiesburg Gravel Supply Co., capital \$50,000, incorporated; Herbert Gillis, 608 John St.

Miss., Jackson—Dixie Glass Bottle Mfg. Co., capital 30,000, incorporated; Dave Rice, Pinehurst, has option on glass sand deposit nr. Jackson; erect plant with daily production capacity 75,000 bottles. 9-4

Mo., Kansas City—A. F. Morris Construction Co., Inc., incorporated A. F. Morris, Bryant Bldg.

Mo., Kansas City—Safety Window Jack Co., capital \$15,000, incorporated; J. Robertson, C. J. Conway, 3004 Linwood St.; manufacture safety jack.

Mo., St. Louis—Levy Publishing Co., 1627 Locust St., capital \$15,000, incorporated; Michael Levy; George M. Wagner.

Mo., St. Louis—Automatic Fire Extinguisher & Alarm Corp., incorporated; Ernest F. Pohl, 4400 Richard Place.

Mo., St. Louis—Positive Safety Switch Lock Co., Inc., 1914 Olive St., capital \$20,000, incorporated; C. Hargrave, 5550 Natural Bridge Rd.

Mo., St. Louis—Southern Container Co. incorporated; Harold C. Ackert, Central Natl. Bank Bldg.

Mo., St. Louis—J. King Kent & Co., Inc., incorporated; J. King Kent, 1030 Commodore Drive; manufacture and install heating equipment.

Mo., St. Louis—New Holland Laundry, capital \$10,000, incorporated; Sam Ellis, 1131 Brooklyn St.

Mo., St. Louis—Pyrotron Mfg. Co. incorporated; Arthur J. Lee, 221 Tiffin St.

Mo., St. Louis—Midwest Industrial Development Co., 231 S. LaSalle St., Chicago, Ill., reported, erect building High, Morgan and Twelfth Sts., to be occupied by Star Chronicle Publishing Co.; brick, stone and rein. conc.; 5 story, basement and sub basement; 120x168 ft.; cost about \$1,500,000; bids, reported, ready in Nov.; E. S. Hight, Illinois Merchants Bank Bldg., Chicago, Ill., advises design of building not yet completed. 4-3

N. C., Goldsboro—Merger reported of W. P. Rose Builders Supply Co. and W. P. Rose Co., capital \$150,000, incorporated; W. P. Rose, Wayne National Bank Bldg.

N. C., Greenville—American Work Shirt Co., Shepard Saltzman, establish work shirt manufacturing plant.

N. C., Greenville—Piedmont Shirt Co., Shepard Saltzman, reported, plans additional machinery for shirt plant.

N. C., Durham—Barbour-Winston Tobacco Co., Inc., capital \$25,000, incorporated; Frank H. Barbour, 2105 Roxboro Rd.

N. C., Raleigh—Raleigh Bedding Co. incorporated; F. B. Reynolds, 1230 Mordecai Drive.

N. C., Scotland Neck—Farmers Hardware Co., capital \$50,000, incorporated; R. L. Johnson, James T. Wilkinson.

N. C., Sterling—Overall Co., 1417 Eleventh Ave., reported, leased present Hollar hosiery building on Highland Ave.; will improve; install new machinery; monthly production 1800 doz. prs. overalls.

N. C., Winston-Salem—Farmers National Co., capital \$100,000, incorporated; Finely E. Long, Nissen Bldg.; insurance.

S. C., Columbia—Legare Engineering Co. incorporated; T. Keith Legare, 1226 Sumter St.

Tenn., Alcoa—Aluminum Co. of America, Oliver Bldg., Pittsburgh, Pa., purchasing ageing oven and roller hearth furnace from Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa., for installation at Alcoa plant. 5-15

Tenn., Clarksville—Simmons Drug Co., capital \$20,000, incorporated; William Kleeman, R. M. Simmons.

Tenn., Morristown—East Tennessee Pack House, Inc., capital \$25,000, incorporated; E. B. Dingus, D. R. Bacon; construct tobacco prize house.

Tex., Pampa—McBauson Lubricating Co., capital \$50,000, incorporated; C. A. Bauson, J. W. Johnson.

Tex., Houston—Pine-O-Pine Co., incorporated; C. E. Lawhon, 1206 Pease St.; manufacture pine oil products.

Tex., Luling—Tullos Iron Works incorporated; R. V. Mackelroy, E. E. Tullos.

Tex., San Antonio—E. Y. White, 701 Broadway, reported, let contract to L. T. Wright, 714 Milam Bldg., for brick laundry and dry cleaning; cost \$60,000.

Tex., Texarkana—Butter-Nut Bread Co., Tenth and State Line Ave., A. C. Wortham, Mgr., receives bids Oct. 15, through Witt Siebert & Holsey, Architects, First Natl. Bank Bldg., Texarkana, for plant, daily output 20,000 loaves; 85x140 ft.; brick; maple floors; cost of building \$50,000 of machinery \$35,000; will let equipment contracts Dec. 1.

Tex., Waco—Jones Baking Co., capital \$30,000, incorporated; George O. Jones, 2419 Washington Ave.

W. Va., Fairmont—Imperial Ice Cream Co., George W. Strong, plans enlargement to plant on Virginia Ave.; L. H. Stewart, Ch. Engr.

W. Va., Huntington—A. C. Pearson, Inc., organized with capital \$50,000 by A. C. Pearson, 239 W. 39th St., New York; establish plant in Joseph Cohen Bldg. for manufacture children's wash clothing; install 50 machines.

Motor Bus Lines and Terminals

Ga., Atlanta—Colonial Stages Co., R. L. Hickey, 85 Houston St., N. E., has plans by Daniell & Beutell, Architects, 701 Georgia Savings Bank Bldg., Atlanta, for bus terminal, Cone and Luckie Sts.; 1 story and part basement, fireproof, rein. conc. construction, struct. steel truss, cement, terrazzo, tile and hardwood floors; following contractors estimating: Williams Construction Co., Red Rock Bldg.; The Flagler Co., Red Rock Bldg.; T. C. Wesley & Son, Red Rock Bldg.; Smith Pew, 435 Irwin St., N. E.; Pittman Construction Co., Rhodes Bldg.; Capitol Construction Co., Standard Bldg.; Donald McIver, 1007 Candler Bldg.; bids opened October 10.

N. C., Marshville—Plyer Motor Co., capital \$25,000, incorporated; Fred L. Plyer, Waxhaw; Carr Bowie, Monroe.

Tex., Lubbock—Merger, reported, of South Plains Coaches and Red Star Bus Line, owned by Joe W. Bowman, Lubbock, and L. L. Watson, Lamesa; operates between Lubbock and Sweetwater.

Virginia—Virginia Beach Bus Line, H. A. Williams, V. P., petitioned State Corporation Comsn., Norfolk, for permission to extend service from Suffolk through Petersburg and Richmond; negotiations underway to connect Raleigh, N. C. and Norfolk; now operating bus line Suffolk to Norfolk and Virginia Beach.

Railways

La., Baton Rouge—C. L. Jackson, Denham Springs, and associates, reported, soon begin constructing 13 mi. railroad connecting North Baton Rouge and Stoney Point; line will join Louisiana & Arkansas Ry. Co. and Yazoo & Mississippi Valley R. R. Co.; project, including gravel pit machinery, cost about \$500,000; S. P. Higginbotham, Engr., Baton Rouge.

Texas—Missouri Pacific R. R. Co., L. W. Baldwin, Pres., St. Louis, Mo., reported, purchased Rio Grande & Eagle Pass Ry. Co., R. W. Davis, Asst. to Pres. and Ch. Engr., Dolores, Tex.; line extends from Laredo to Dolores.

Railway Shops and Terminals

La., New Orleans—Gulf, Mobile & Northern R. R. Co. of Louisiana, Wm. O. Lewis, 404 Whitney Bldg., has plans approved by Louisiana Public Service Comsn. for freight terminals along Industrial Canal. 9-25

Tex., Cleburne—Gulf, Colorado & Santa Fe Ry. Co., K. B. Duncan, Ch. Engr., Galveston, advises contemplating placing on budget for 1931 engine house here, but it will probably be well in the spring before it is known whether executives have passed on this. 9-2

Roads, Streets and Paving

In connection with LAND DEVELOPMENT large sums are expended for roads, streets, paving and sidewalks. Details will be found under that classification.

Proposed Construction

Ala., Athens—City, Melvin Holt, Engr., plans 4400 lin. ft. 18-ft. conc. paving.

Ala., Montgomery—City, W. L. Jackson, Clk., has low bid from McCalla & Kenan, Bell Bldg., at \$17,760 for paving S. Jackson St.

Ark., McCray—City, Gerald Norris, Mayor, plans asphalt paving, Edmunds Ave.

Florida—State Road Dept., B. M. Duncan, Engr., Tallahassee, take bids in November on 2 roads: 10 mi., road 5, Sulphur Springs to Pasco City line; 20-ft. conc., Road 17, Haines City to Lakeland.

Fla., Bartow—City, J. E. Childs, Mgr., take bids at once for asphalt paving, conc. curbing streets.

Georgia—State Highway Comsn., J. W. Barnett, Chmn., Atlanta, plans beginning work on lime rock and asphalt surfacing Route 7, Peach County.

Kentucky—State Highway Comsn., H. D. Palmore, Engr., Frankfort, opens bids Oct. 28 for 3 roads and bridge: Allen-Simpson Counties—0.5 mi. bridge and approaches, Sulphur Fork Creek, Scottsville-Franklin road, S. P. AG; Carlisle County—10.8 mi. surfacing, Arlington-Mayfield road, S. P. 1 FS; Marion County—3.0 mi. surfacing, Lebanon-New Haven road, S. P. 62 BS; Taylor County—3.9 mi. grading, draining, Mannsville-Clementsville road, S. P. 154 BG.

Ky., Lexington—City, W. C. Wilson, Vice Mayor and Commr. of Public Works, plans paving, sidewalks, curb and gutter on 3 new thoroughfares in vicinity of new Castlewood Park site.

Louisiana—State Highway Comsn., O. K. Allen, Chmn., Baton Rouge, opens bids Oct. 28 for 19 roads and 2 bridge projects: Webster Parish—2 cresoated pile trestles, combined length 700 ft., Bayou Dorcheat bridge, Sarepta-Shongaloo; St. Helena Parish—drainage structures, Killian's Chapel-State Line, consisting of 2 small timber trestles and 3 conc. box culverts; Union Parish—5 mi., Farmerville-Spearville; Jackson Parish—7.3 mi., Womack-Winn Parish Line; Evangeline-St. Landry Parishes—2.8 mi., Tate Cove-Whitelle; Vernon Parish—7.5 mi., Caney-Toro; Rapides Parish—4 mi., Holloway-Rapides Parish Line; Lincoln Parish—6.9 mi.; Caldwell Parish—6.1 mi., Columbia-Chatham; Sabine Parish—5.3 mi., Many-Marthaville; Desota Parish—8 mi., Logan-Hunter; Vermilion Parish—5 mi., Gueydan-Florence; Madison Parish—5 mi., Waverly-Jackson Ferry; Red River Parish—8 mi., between Highway Route 225, Fairview Alpha School and Route No. 9; Catahoula-LaSalle Parishes—8.9 mi. paving, Enterprise—Rosefield; Richland Parish—2.9 mi. paving, Alto-Columbia; 4.3 mi. paving, Alto-Columbia; Tensas Parish—9.1 mi. paving, Winnsboro-St. Joseph; Ascension-Livingston Parish—5.1 mi. paving, Acy to Head of Island; Union Parish—3 mi. paving, Spearville to Farmerville; Evangeline Parish—5 mi. paving, Reddell-Foley.

Louisiana—State Highway Comsn., O. K. Allen, Chmn., Baton Rouge, has low bids for 3 roads: Avoyelles-Rapides Parishes—7.516 mi. 18-ft. conc., Cheneyville-Bunkie section, Jefferson Highway, Forcum-James Co., Dyersburg, Tenn., \$198,272; Ascension Parish—10.648 mi. gravel surfacing, Baton Rouge-New Orleans Airline Highway, Southern Construction Co., Inc., \$37,963; Ouachita Parish—3.227 mi. gravel surfacing, Luna-Vixen Highway, Wimberly Construction Co., Arcadia, \$21,889. 9-11 and 9-18

Louisiana—State Highway Comsn., O. K. Allen, Chmn., opens bids in Nov. for gravel road projects and hard-surfaced road projects.

Maryland—State Roads Comsn., L. H. Stuart, Sec., Baltimore, opens bids Oct. 14 for 3 roads: Baltimore City—0.46 mi. sheet asphalt, Harford Road, List Ave. to Strathmore Ave., BC-97-72; Dorchester County—0.9 mi. conc., Finchville-Federalburg road, end of D-45 toward Federalburg, D-66-12; Garrett County—0.08 mi. conc., from end of bridge over Western Maryland R. R., Gorman to beginning of G-41, G-62-63.

Maryland—State Roads Comsn., H. L. Stuart, Sec., Baltimore, has low bids for 2 roads and bridges: Carroll County—0.8 mi. conc., end of Cont. CL-54 extending south of Mexico, southeast, CI-90-52, Thomas, Bennett & Hunter, Westminster, \$17,401; Worcester County—0.84 mi. conc., Snow Hill-Whitton road, W-77-12, Hannaman-Burroughs Co., Salisbury, \$14,338; superstructure over tracks of Pennsylvania R. R., Severn, Phoenix Bridge Co., Phoenixville, Pa., \$7357. 9-25

Md., Baltimore—City, Bd. of Awards, has low bids for streets and alleys: Cont. 564, 40,000 cu. yd. grading, H. O. Firor, 1107 E. Hoffman St., \$11,600; No. 562, 9650 sq. yd. cement conc., Mahoney Bros., 111 Rutland Ave., \$20,417; No. 563, 7500 sq. yd. sheet asphalt paving, Baltimore St. bridge approaches, Baltimore Asphalt Block & Tile Co., 1320 N. Monroe St., \$30,199; Alley Cont. No. 142, 10,800 sq. yd. conc. paving, T. Fratta & Co., 3501 E. Pratt St., \$19,054. 9-25

Mississippi—Roads for which bids will be opened Oct. 13 by State Highway Comsn., C. M. Williamson, Director, Jackson, reported, will involve \$1,275,000. 10-2

Miss., Kosciusko—Bd. of Comms. of McAdams-Sallis-Bodone Separate Road Dist., Attala County, Office of Chancery Clk., opens bids Oct. 16 for graveling 3 roads. 10-2

Missouri—Road and bridge projects for which bids will be opened Oct. 11 by State Highway Comsn., T. H. Cutler, Ch. Engr., Jefferson City, will involve approx. \$1,500,000. 10-2

Mo., St. Louis—City, Bd. of Public Service, opens bids Oct. 14 for improving Limit Ave. and on Oct. 21 for improving several other streets.

North Carolina—State Highway Comsn., John D. Waldrop, Engr., Raleigh, has low bids for 9 roads and 2 bridges: Jones County—4.8 mi. hard-surface, Route 121, No. 2841, Murray Construction Co., 508 Union Ave., Knoxville, Tenn., \$73,518; Lenoir County—14.65 mi. hard-surface, Kinston to Jones County line, No. 2620, West Construction Co. of North Carolina, Inc., Volunteer Life Bldg., Chattanooga, Tenn., \$211,241; Columbus County—structure, Route 25, No. 3320, J. D. Orrell, Wilmington, \$11,651; New Hanover County—82 mi. Route 40, No. 358, P. R. Ashby & Co., 2204 Fairview Road, Raleigh, \$16,092; structures, T. A. Loving & Co., Goldsboro, \$89,940; Alamance County—8.4 mi. widening, Route 10, No. 5092, Cobb & Homewood, Chapel Hill, \$6393; Moore County—13.82 mi. Route 74, No. 5752, roadway, Lee J. Smith, Arcade Bldg., Asheville, \$45,729; structures, Hobbs-Peabody Construction Co., Builders Bldg., Charlotte, \$14,512; Gaston County—3.01 mi. hard-surface, Route 273, No. 633, Guilford Construction Co., Greensboro, \$61,073; Rowan County—2.11 mi. widening hard-surface, Route 10, No. 6730, Blythe Bros. Co., Brevard Court, Charlotte, \$37,447; Stanley County—6.24 mi. dirt road, Route 74, No. 6930, Lee J. Smith, Asheville, \$34,190; Union County—2.51 mi. widening hard-surface, Route 20, No. 6920, Blythe Bros. Co., \$22,236. 9-18

Tenn., Knoxville—Knox County Highway Comsn. will improve dirt roads.

Tenn., Memphis—City, Street Comsn., plans graveling 8 Fort Pickering streets.

Texas—State Highway Comsn., Gibb Gilchrist, Engr., Austin, plans road and bridge: Randall County—1331 ft. caliche base and bit. surfacing, Highway 33, \$1640; Trayson County—underpass, Highway 78, White-wright, \$10,000, jointly with St. Louis Southwestern Ry.

Texas—State Highway Comsn., Gibb Gilchrist, Engr., Austin, opens bids about Oct. 20 for 6 roads and 12 bridge projects, costing about \$800,000: Live Oak County—389 mi. in 6 timber pile trestle, steel

and conc. bridges over Nueces River and relief openings, Highway 145, State Aid Proj. No. 931-G; Brown County—19,599 mi. grading, draining, Highway 10, Fed. Aid Proj. 584-B, Unit 1; Madison County—6.328 mi. grading, draining, Highway 21, F. A. Proj. 490-B, Unit 1; Liberty County—4.83 mi. grading, draining, Highway 35, F. A. Proj. 125; Ector County—7,670 mi. grading, draining, Highway 137, State Aid Proj. 936-B, Unit 1; Brown County—1.134 mi. graded approaches and 4 conc. bridges, Highway 10, F. A. Proj. 580-A; Live Oak County—timber pile trestle, steel and conc. bridges over Salt Branch and Spring Creek bottoms, Highway 9, State Aid Proj. 931-C; Hopkins County—15,206 mi. gravel surface course and grading, Highway 11, F. A. Proj. 501-A and B; Karnes County—390 mi. underpass approaches and conc. paving, Highway 72 near Runge, State Aid Proj. 788-D; Bee-San Patricio Counties—12,282 mi. grading, draining, Highway 12, F. A. Proj. 572-A and B.

Texas—Road and bridge work for which State Highway Comsn., Austin, opens bids about Oct. 20 reported, will cost \$750,000 to \$800,000.

Tex., Galveston—Galveston County, E. B. Holman, Judge, plans paving road, Galveston to High Island.

Tex., Highlands—City plans expending \$30,000 for street improvements. See Financial News Columns.

Tex., Houston—City, W. E. Monteith, Mayor, and Harris County, H. L. Washburn, Auditor, open bids Oct. 29 for paving Wayside Dr.

Tex., Houston—City, Fred W. Turner, City Sec., instructed by City Council to call for bids for 52-ft. paving, Wayside Dr.; also for draining, paving, N. MacGregor Way; Council ordered paving, Brazos St., \$26,700.

Tex., Houston—Harris County, H. L. Washburn, Auditor, and City, W. E. Monteith, Mayor, open bids Oct. 29 for paving Wayside Dr.

Tex., Pharr—City plans expending \$20,000 for street paving. See Financial News Columns.

Tex., San Antonio—City, Paul Steffler, Street Commr., will let contract to Alamo Paving Co., 321 Dawson St., at \$11,130, for paving 24th St.; I. Ewig, City Engr. 9-25

Virginia—State Dept. of Highways, C. S. Mullen, Ch. Engr., Richmond, has low bids for 2 roads: Henrico County—1.162 mi. 30-ft. macad. or conc. shoulders, Proj. 575CB, Route 31, City Building Corp., Builders Exch. Bldg., Richmond, \$34,086; Gloucester-King and Queen Counties—4.196 mi. 32 and 33-ft. grading, draining, Adner-Shackleford Forks, Proj. 575CB, Route 31, Spotsylvania Construction Co., Inc., Highland Springs, \$19,887. 9-18

Virginia—State Dept. of Highways, C. S. Mullen, Engr., Richmond, opens bids Oct. 14 for 1 mi. macad., Route 39, Augusta County, Proj. F-641-D 11,854 cu. yd. excavation, 5588 lin. ft. conc. curbing. 9-11

Va., Hopewell—City Council authorized street improvements to cost about \$10,000.

West Virginia—State Road Comsn., Geo. E. White, Sec., Charleston, rejected bids for 15 mi. widening with stone base and modified bit. macad., Martinsburg-Charles Town road, Berkeley County. 9-11

West Virginia—See Bridges, Culverts and Viaducts.

W. Va., Huntington—City Comsn. opens bids Oct. 13 for grading, draining, U. S. Route 60 western section of city.

Contracts Awarded

La., Pineville—Town Council let contract to James Stanton & Sons, Lake Charles, for paving town's part of Main St. in cooperation with State Highway Comsn.; Highway Comsn. let contract to B. J. Carbo, 212 20th St., Alexandria, for paving its portion.

La., Tallulah—Madison Parish Police Jury, P. O. Benjamin, Sec. and Engr., let contract to Henington Bros., Crystal Springs, Miss., at \$19,441, for 9 mi. gravel, Oak Grove-Hemilton-Thomastown road. 9-18

Mo., St. Louis—City, Bd. of Public Service, let street improvement contracts: Chippewa St., Samuel Kraus Co., 645 Edmund St., \$6580; Hampton Ave., Mills Drayage Co., 2817 Easton St., \$10,890; Hampton Ave., Samuel Kraus Co., \$9438; Hampton Ave., Webb-Boone Paving Co., 5103 Tyler St., \$29,787. 9-25

Texas—State Highway Comsn., Gibb Gilchrist, Engr., Austin, let contracts for 2 roads and bridge project: Haskell County—13,834 mi. grading, draining, large bridges, F. A. Proj. 587-A, Highway 18, Highway 30 to Stonewall County line, Womack-Henning-Rol-

ins, Inc., Box 664, Sherman, for grading and small drainage structures, \$39,119; L. D. Parks, Newcastle, for large bridges, \$18,947; Caldwell County—6.073 mi. grading, draining, F. A. Proj. 522A, Highway 3-A, Luling to Gonzales County line, Standifer Bros., Big Wells, \$65,396.

Tex., Dallas—City Comsn., R. A. Wylie, Street Commr., let street paving contracts totaling \$246,701 to Southern Paving Co., 3101 Flynn St.; Central Bithulthie Co., Praetorian Bldg.; Uvalde Construction Co., H. L. Canady Co., both Santa Fe Bldg.; Cooldridge Construction Co., and Peacock & Childers. 9-25

Tex., Houston—City, W. E. Monteith, Mayor, let contract to National Paving Co., 112 Buffalo St., at \$85,692, for 4500 ft. paving, Washington Ave.; J. M. Nagle, City Engr.

W. Va., Wheeling—Ohio County Comms. let extension of contract for work, at approx. \$20,000, to H. L. Seabright Co., 43rd and McColloch St., for improvements to 29th St. Blvd.

Sewer Construction

Sewer construction in LAND DEVELOPMENT projects involves the expenditure of large sums of money. Under that classification details of these improvements are reported

Ala., Mobile—See Water Works.

La., New Orleans—Fuller Construction Co., 8217 Palmetto St., low bidder for construction of main subchannel of Florida Ave. drainage canal from Station 3 to Louisa St. end. 8-14

Md., Baltimore—Baltimore Machine Works, 111 S. Paca St., low bidder at \$28,549 for sewer, Storm Water Contr. No. 147; Frank Martel, 1465 Reynolds St., at \$33,359 for sewer, Sanitary Contr. 200; Pen-Mar Co., Inc., Munsey Bldg., at \$17,740 for vit. sewer pipe. 9-18

Md., Baltimore—Gray Concrete Co., Thomasville, N. C., has contract for conc. pipe, 24-in. to 60-in. 10-2

Md., Catonsville, Baltimore—Baltimore County Metropolitan Distr. Comms., Towson, rejected bids for Sewer Contr. No. 22-8, West Catonsville; will call for new bids, date not set, for 1750 ft. of 24-in. and 1446 ft. of 8-in. sewers. 9-18

Md., Easton—C. W. Sigman, low bidder for storm water drains.

Md., Salisbury—City receives bids Oct. 13 for construction of sanitary sewers. See Want Section—Bids Asked.

Mo., St. Louis—Missouri Rolling Mill Corp., 6800 Manchester St., reported, has contract for 500 tons rein. steel for Section B, Maline Creek sewer. 9-25

Mo., St. Louis—Fruin-Colmon Contracting Co., 502 Laclede Bldg., has contract for Section B, Maline Creek sewer. 9-25

N. C., Charlotte—Tucker & Laxton, Independence Bldg., has contract for disposal plants; W. M. Platt, Engr., F. N. Bank Bldg., Durham. 10-2

Okla., Britton—City, reported, plans lateral sewers; Peckham & Riggs, Consit. Engrs., 603½ W. Main St., Oklahoma City. 8-21

Okla., Cordell—J. D. Wann, 1115 W. Main St., Oklahoma City, reported, has contract at \$34,000 for 2800 ft. of 15-in. vit. clay sewer.

Okla., Kingfisher—City votes Oct. 14 on sewer bonds; Milliken & Whitenack Co., Engrs., Southwestern Natl. Bldg., Oklahoma City. 9-25

Okla., Tulsa—Smedley Construction Co., 2756 E. Twenty-fifth St., reported, has contract at \$87,000, for Storm Sewer Pro. 9-H-30.

Okla., Westville—E. W. & Baker Co., Perrine Bldg., Oklahoma City, reported, has contract for sewage disposal plant. 8-7

S. C., Anderson—Odiorne Construction Co., 237 Calhoun St., reported, has contract at \$15,000 for sewer mains North Anderson.

S. C., Cayce—See Water Works.

S. C., Spartanburg—Sub-District B, of Spartanburg Metropolitan Sewerage Dist., plans construction of sewers and water supply system in Southern shops area; Lee Brothers & Greer, Spartanburg, will drill several wells; date for receiving bids for laying pipes not set.

Tenn., Memphis—H. A. McGuire & Co., Derron Bldg., reported, has contract at \$43,000 for sewers, treatment tank in Normal Section.

Tex., Dallas—Hawley, Freese & Nichols, Const. Engrs., 417 Capps Bldg., Fort Worth, advise plans in progress for sewage disposal plant and will probably be completed about Jan. 1. 8-14

Tex., Dallas—Dallas Transportation Co., 817 Bourbon St., reported, has contract at \$45,000 for sewer on Mill Creek between Swiss Ave. and Live Oak St., East Dallas.

Tex., Dallas—Dallas Construction Co., 3106 Commerce St., has contract at \$162,628 for Warren Ave. Dist. Sewer from Wall St. to T. & N. O. Railroad with relief sewers; use rein. conc. pipe in main line, with cement conc. pipe or clay in laterals. 9-11

Tex., Houston—W. S. Tyler Co. has contract for furnishing and installing 3 screens for North Side disposal plant; C. K. Horton, 2116 Fannin St., low bidder for sanitary sewers to serve Elliott school; city plans remodeling South Side sewage disposal plant.

Tex., Irving—City votes Oct. 25 on \$20,000 sewer and disposal bonds.

Tex., Port Isabel—City votes Oct. 20, extended date, on sewer, water and park improvement bonds. 9-25

Tex., Sudan—City votes Oct. 25 on \$35,000 sanitary bonds.

W. Va., Huntington—Bd. of Commrs. receives bids Oct. 13 for sewers. See Want Section—Bids Asked.

Street Railways

Fla., Jacksonville — Jacksonville Traction Co., John P. Ingle, Pres., submitted list of improvements, estimated to cost \$204,625, to City Council's Special Franchise Committee, for franchise; includes replacement of tracks, rebuilding 45 double-truck cars and rebuilding 35 single-truck cars.

Telephone Systems

Ala., Tuscaloosa—Meade Johnston, 16 University Heights, reported, applied to Federal Radio Comsn., Washington, D. C., for permission to construct broadcasting station.

Ark., Little Rock—John R. Frazer, A. O. U. W. Bldg., reported, acquired Station KGJF; plans improvements.

Fla., Jupiter—U. S. Navy Dept., Ch. Bureau Yards and Docks, Washington, D. C., construct radio tower; work includes furnishing and erecting 150 ft. steel radio tower; bidders are Hartensline Zane Co., 225 Broadway, New York; McCoy & Kirtland, 23 W. Mount Royal Ave., Baltimore, Md.; Pittsburgh Des Moines Steel Co., Neville Island, Pittsburgh, Pa.; no definite date for opening bids.

Kentucky—Southern Continental Telephone Co., Headquarters Cookeville, Tenn., formed by consolidation of 2 Tennessee and 6 Kentucky telephone companies; \$2,000,000 capital; James N. Cox, Cookeville, Tenn., interested; companies involved are: Gainesboro Telephone Co., Cookeville, Tenn.; Weakley County Telephone Co., Martin, Tenn.; Moore Telephone Co., Moore, Ky.; Hardin County Telephone Co., Elizabethtown, Ky.; Grayson County Telephone Co., Litchfield, Ky.; Lebanon Home Telephone Co., Lebanon, Ky.; Taylor County Telephone Co., Campbellville, Ky.; Tucker Telephone Co., Cave City, Ky. 10-2

La., Baton Rouge—T. P. Singletary, 341 Florida St., reported, applied to Federal Radio Comsn., Washington, for permission to construct broadcasting station.

La., Baton Rouge—A. B. Murray, 800 Lake Park St., and T. B. Singletary, reported, applied to Federal Radio Comsn., Washington, D. C., for permission to construct broadcasting station.

La., Crowley—Southern Bell Telephone & Telegraph Co., Atlanta, Ga., reported, install telephone system, erect building, etc.

Mo., Kansas City—Southwestern Bell Telephone Co., 324 E. Eleventh St., let contract to Miller-Stauch Construction Co., Railway Exchange Bldg., for telephone exchange; 100 x137 ft. rein. conc. frame, tile joist floors; I. R. Timlin, Archt., Telephone Bldg., St. Louis; H. Vaughn, Constr. Engr., Telephone Bldg., Kansas City; Western Electric Co., Kansas City, Mo. (Branch) equipment contractors; W. P. Joyce, 1113 13th St., has contract for steam heating plant. 9-25

Mo., Robertson — Federal Radio Comsn., Washington, D. C., reported granted permission to Aeronautical Radio, Inc., for broadcasting station.

N. C., Greenville—J. E. Richards applied to Federal Radio Comsn., Washington, D. C., for permission to construct broadcasting station.

N. C., Greensboro—J. B. Pound, Lookout Mountain, Chattanooga, Tenn., reported, acquired radio station WNRG.

N. C., Thomasville—Linville H. Clemmons, applied to Federal Radio Comsn., Washington, D. C., for permit to construct broadcasting station.

S. C., Greenville—W. T. Hamilton, Chamber of Commerce Bldg., Main St., reported, applied to Federal Radio Comsn., Washington, D. C., for permission to erect broadcasting station.

Tex., Fort Worth—R. F. Ball Construction Co., 511 Electric Bldg. Annex, has contract at \$89,000 for building to be occupied by Western Union Telegraph Co., 701 Main St.; 75x100 ft., 3 story and basement, rein. conc., brick, terra cotta and tile; J. B. Davies, Archt., 1312 Hemphill St. 10-2

Textile Mills

Ala., Anniston — Southern Mills Corp., (Cordage and Twine) Oxford, reported, constructing \$30,000 addition to plant, install \$25,000 machinery.

Fla., Miami—Southern Textile Mfg. Co., 252 N. W. 29th St., E. B. Elliott, Pres., Chas. R. Pierce, Sec., advises will erect plant with capacity for preparation of spinning 10 tons ramie weekly; at outset all ramie will be imported from China.

Ga., Atlanta—Exposition Cotton Mills, 794 Marietta St., N. W., having rein. conc. addition constructed at cost of \$71,000; Robert & Co., Archts., Bona Allen Bldg.; work in charge of Sam W. Hodges Co., Erlanger Bldg.; Greenville Steel and Foundry Co., 120 Markly St., Greenville, S. C., has contract for steel.

N. C., Taylorsville—A. A. Whitener, Hickory, D. P. Rhodes, Lincolnton, owners of former Miller Mfg. Co., have organized Rhodes-Whitener Mills, Inc.

N. C., Asheville—Raylaine, Inc., G. Jean Nord, Pres., Vanderbilt Hotel, D. Ralph Millard, Harmon Miller, Lawrence S. Holt, Jr., Directors, reported has had plans and drawings completed by G. Jean Nord, for plant on Sweeten Creek Highway, erection to begin shortly; site selected is 5 acre tract about 1 mile from Biltmore; cost of first unit \$500,000; will manufacture a fibre through secret process, this fibre to be made into yarns and fabrics suitable for use for upholstery for airplanes and furniture. 9-4

S. C., Columbia—F. T. Parker Co., 1800 Green St., offering \$50,000, 8% cumulative preferred stock, 500 shares common stock; company incorporated 1929 to acquire, operate and expand business of manufacture and sale of Press Cloth; proceeds will be applied to financing necessary for purchase of ground, building of factory, purchase of additional machinery. 5-8

S. C., Landrum—L. G. Southard, Atty. for John N. Cudd, reported, acquired Blue Ridge Mills.

S. C., Travelers Rest—Brandon Corp., Aug. W. Smith, Pres., Treas., Greenville, advises will not require any new machinery and are not increasing buildings at Renfrew plant. 10-2

Va., Narrows — Mountain Hosiery Corp., Herbert Saphir, 212 Westberry Court, Brooklyn, N. Y., reported, leased plant of Cavalier Hosiery Mills; manufacture boys' golf and sports hose; plans installing additional machinery.

Water Works

Details of water works improvements in connection with the many LAND DEVELOPMENT operations will be found under that classification

Ala., Mobile—City probably vote before Nov. 15 on bonds for water works and sewers and airports. See Financial News Columns. 7-17

Md., Baltimore—J. A. LaPorte Corp., 109 State St., Albany, New York, has contract at \$996,732 for construction of Prettyboy dam, designed to impound 20,000,000,000 gal. of water in storage lake; Charles Brown Cornell, Youngstown, Ohio, Constr. Engr.; cost \$3,500,000. 10-2

La., Hammond—City votes Oct. 28 on plans for extending water works system and acquiring fire department equipment.

Mo., St. Louis—Commonwealth Utilities Corp., 1401 Arch St., Philadelphia, Pa., reported, plans \$1,500,000 improvements to water system, recently acquired; plans include complete high pressure pumping station, additional purifying facilities, etc. 7-17

Okla., Bartlesville—City, reported, plans \$30,000 sewage disposal plant; J. H. McCormick, Engr.

Okla., Perry—City plans voting on water supply bonds.

Okla., Stigler—City, J. L. Holmes, Mayor, reported, plans water supply system; cost \$15,000.

S. C., Cayce—Town, R. C. Allen, Mayor, reported, considering \$55,000 bond issue for water and sewer system; A. E. Legare, State Sanitary Engr.

S. C., St. George — City, J. Olin Horne, Mayor, reported, entered into contract with South Carolina Power Co., Charlotte, for extension and improvement of power lines recently acquired by city.

Tenn., Collierville — City voted \$30,000 bonds for improvements water works. 9-11

Tenn., Memphis—Bd. of Water Commrs., voted to extend water system at cost of \$16,000, to include Hollywood, Jackson Ave. area and northeast Memphis.

Tex., Beaumont—City advises has no definite plans yet for water improvements; survey in hands of Hawley, Freese & Nichols, Engrs., Capps Bldg., Fort Worth. 19-2

Tex., Brownsville — Henry Exall Elrod, Const. Engr., 1925 Wentworth St., Houston, reported, has contract to supervise construction of water filtration plant. 10-2

Tex., Brownsville—City, H. Van Horn, Sec., receives bids Oct. 31 for complete water filtration plant. See Want Section—Bids Asked.

Tex., Dallas—Glen Haven Country Club, T. J. Sheppard, Club Mgr., reported, construct dam on Richardson Rd., to impound 25,000,000 gal. water.

Tex., Georgetown—A. C. Brody, has contract for last unit of brick and conc. building for water and light plant.

Tex., Port Isabel—See Sewer Construction.

Tex., Woodville—City votes Oct. 21 on \$30,000 water works bonds.

W. Va., Moundsville—City, reported, receives bids in late fall for electric driven pumping plant, drilling wells; cost \$50,000; D. Morrow, Dist. Mgr. for Supervising Engineer, Inc., 43 Cedar St., New York. 7-28

Woodworking Plants

Ark., Camden—Rockwell Chair Factory, Ed F. Graves, Gen. Mgr., has brick plant under construction for manufacture chairs from gum and oak, also dining room and kitchen tables; machinery to be installed and plant in operation by Dec. 15; daily capacity 90 doz. chairs. 9-25

Mo., Bismarck—Ozark Oak Flooring Co., capital \$20,000, incorporated; M. E. and Slyde Reble.

FIRE DAMAGE

Ala., Haleyville—Snoddy Bros.' Hospital. Ark., Searcy—Temple Co.'s gin; loss \$15,000.

D. C., Washington—Denver Apartments, 1418 Chapin St., N. W.

Fla., Molino — Jacobi Matthews Planing Co.'s plant and planer mill of Jacobi Lumber Co.; loss \$30,000.

Fla., St. Petersburg—Manchester Board and Paper Co.'s storage house on Fleet St.

Ga., Atlanta—Plants on Confederate Ave. of Commonwealth Marble & Granite Co., Etowah Monument Co., National Marble and Granite Co., Inc., Universal Monument Co., Wholesale Granite Co. and Berkley Granite Co.; loss \$200,000.

Ga., Wrens—Wrens Flour Mill, building owned by I. W. Sheppard; loss \$15,000.

Ky., Elsmere—Garvey Theatre; loss \$10,000.

Ky., Horse Cave—Building owned by W. P. Kirtley, occupied by Henry Motor Co.; loss \$30,000.

Ky., Glasgow—F. D. James & Son's garage on E. Main St.

La., Simsboro—Allen Raspberry's residence.

Md., Baltimore—Two floors of Baltimore Country Club, Roland Park; loss \$150,000; Heyward E. Boyce, Pres., Maryland Trust Bldg.

Mo., Humansville—Canning plant owned by R. H. Greer, Marshfield.

Mo., New Hampton—Scott-Nickerson Mercantile Co. building, owned by Mrs. John Virden; loss \$10,000.

N. C., Goldsboro—R. A. Creech's residence, 704 Park Ave.; loss \$6000.

S. C., Mullins—Mrs. R. Winstead's building occupied by Burnham Furniture and Undertaking Co.

Tenn., Nashville—C. W. Meinhardt's store, 935 Church St.; loss \$15,000.

Tex., Bonham—Seed and cotton house of Ravennal Gin.

Tex., Fort Worth—Trav Daniel Co.'s store, 10th and Main Sts.; loss \$15,000.

Tex., Marshall—Building occupied by Web

Rogers' grocery, owned by J. S. Wagnon Estate; loss \$10,000.

Tex., Mexia—Woodmen of the World Bldg., Shiloh, 5 miles from Mexia.

Tex., Santo—Masonic Hall over Joe Bradford's grocery, 2 vacant bldgs. owned by L. E. Beaty, J. E. Bankhead's barber shop, C. E. Maddox Bldg. occupied by Johnson Cafe; loss \$14,000.

Tex., San Marcos—Two gymnasiums at Southwest Texas Teachers' College; loss \$40,000.

Tex., Wilano—Hairston Bldg.; J. D. People's store; L. B. Duke Restaurant; Masonic Bldg.; W. T. Booker Bldg.; J. B. Newton & Sons' Bldg.; I. O. O. F. Bldg.; loss \$30,000.

Va., Petersburg—Tobacco factory of W. E. Sawyer Tobacco Co., E. Washington and Jefferson Sts.

Von Rosenberg, 1515 N. Alamo St., for recreational bldg., Highland Park; Adams & Adams, Archts., Real Estate Bldg. 9-11

W. Va., Clarksburg—Harrison County Court, Maurice L. Loudon, Clk., selected Walker & Weeks, 11001 Euclid Ave., Cleveland, O., as architects for \$750,000 courthouse; Edw. J. Wood & Son, Asso. Archts., Lowndes Bldg., Clarksburg. 7-31

Dwellings

Ark., Little Rock—Cole Building Co. erect 2 dwellings, Normandy addition; total \$12,000.

D. C., Washington—O. T. & W. A. Carr, Mills Bldg., erect dwelling, 4933 Butterworth Place, N. W., after plans by G. A. Brodie, 4908 Seventh St., N. W.

D. C., Washington—H. P. Huddleson, 421 Twelfth St., N. W., erect dwelling, 5335 Nebraska Ave., N. W., after plans by C. N. Norton, Archt.

D. C., Washington—D. C. Gruver, 927 15th St., N. W., has permit for 5 brick dwellings, 2411-19 39th St., N. W.; 2 stories; \$30,000.

Ga., Claxton—Turner Brewton, Postmaster, erect 1-story brick veneer residence.

Md., Baltimore—Lester Benson, 3204 Northern Pkwy., plans stone or brick residence, Stoneleigh; 2 stories; architect not selected.

Md., Baltimore—John Stokes, 3 E. Redwood St., receives bids Oct. 13 for residence, 4631 Sedgwick Rd.; Machen & Dixon, Archts., 312 N. Charles St.; following firms estimating: Ralph MacMurry, 9 E. Pleasant St.; Robt. D. Forbes, 3904 Greenmount Ave.; Edgar Levi, 5708 Greenleaf Rd.; Century Corp., Morris Bldg.; Willard E. Harn, 2314 Oak St.; J. S. Downing, 2609 Greenmount Ave.; Earl G. Taylor, 3805 St. Paul St., all Baltimore; Wm. H. Sands, Towson.

Md., Baltimore—Jos. O. Wilson, 5400 Harford Road, plans 2-story frame residence, Hillcrest Ave. near Harford Rd.

Md., Baltimore—Stephen P. Harwood, 10 E. Fayette St., erect 5 brick dwellings, 2601-09 Edmondson Ave.; 2 stories, 16x46 ft. and 19x20 ft.

Md., Baltimore—Dr. D. C. Wharton Smith, 701 Cathedral St., erect brick residence; brick, 2½ stories, 96x21 ft. and 26x45 ft.; Palmer & Lambdin, Archts., 513 N. Charles St.; about ready for bids.

Mo., St. Louis—Lawrence Miller erect \$10,000 brick residence, Country Club Addition No. 2; 1½ stories, 37x27 ft.

Mo., St. Louis—Chas. M. Avery, Jr., erect brick residence, Algonquinwood; 2 stories and basement, 61x31 ft., hardwood floors, tile bath, slate roof, rubble stone foundation; John Warren Teasdale, Archt., First Natl. Life Bldg.

Mo., St. Louis—Robert Francis Denny, Archt., has drawn plans for \$15,000 English type residence, Wydown Forest; 8 rooms, 2 baths, wrought iron stairway, 2-car garage.

Okla., Oklahoma City—Jas. B. Rogers, American Natl. Bldg., erect \$15,000 residence, Nichols Hills; W. J. Laws & Co., Archts., First Natl. Bank Bldg., plans completed, work start in about 60 days.

Oklahoma City—Jack Shaeffer, 1315 E. Park St., having plans drawn for \$150,000 residence, Nichols Hills.

Okla., Tulsa—Chas. H. West, 204 S. Allegany St., erect 3 dwellings and garages, 1708-18-24 S. Evanston St.; \$15,000.

Okla., Tulsa—C. J. Pelton, 1542½ E. 15th St., erect \$10,000 duplex, 1520 S. Trenton St.; 2 stories.

Tex., Fort Worth—Jos. R. Pelich, 1103 Aviation Bldg., erect brick residence, Rivercrest Addition; 1½ stories and basement, 40x60 ft., oak floors, slate or tile roof, 2 tile baths; plans by owner.

Tex., Galveston—J. W. Ross erect brick veneer residence; Leuders stone trim, 2 stories and basement, 57x57 ft., 2 tile baths, gum, pine trim, shingle roof, warm air heat; Ben B. Milam, Archt., W. T. Waggoner Bldg., Fort Worth; plans ready.

Tex., Houston—Rolland Brodley, Esperon Bldg., erect \$10,000 residence, 1731 Marshall St.; brick veneer, 5 rooms.

Tex., Houston—John S. Mellinger, 706 Chelsea, erect \$15,000 residence, 3452 Del Monte Drive; brick veneer, 9 rooms.

BUILDING NEWS

BUILDINGS PROPOSED

Association and Fraternal

Ala., Montgomery—Grand Chapter, Order of Eastern Star, Mrs. Cora McAdory, Grand Matron, Auburn, erect \$20,000 addition to Masonic Home; brick veneer and hollow tile, 1½ stories, dormitory, play rooms, dining room; Denham & Denham, Archts., Comer Bldg., Birmingham; probably start work in 1931.

La., New Orleans—Young Men's Christian Assn. receives bids Oct. 29 for \$300,000 central bldg.; rein. conc., brick, steel and terra cotta, granite and stucco trim, 3 stories, 84x137 ft., conc. floors, marble, art marble, linoleum and tile-text floors, swimming pool; Favrot & Livaudais, Ltd., Archts., Hibernia Bk. Bldg. 9-4

Mo., Joplin—Young Women's Christian Assn., Mrs. Frank J. Pickett, Pres., 514½ Joplin St., has gift of site, Redings Mill, for clubhouse.

Bank and Office

D. C., Washington—Standard Oil Company of New Jersey, 241 Pennsylvania Ave., N. W.; \$1,000,000 office and garage bldg.; Herman F. Doeleman, Balto. Tr. Bldg., Baltimore, Md., handling struct. engineering details; steel frame, conc. floors, stone, 6 stories and basement, 71x335 ft., with 200x20-ft. court in rear above second floor line; probably steam heat; Clyde N. & Nelson Friz, Archts., Lexington Bldg., Baltimore. 9-4

Ga., Adel—Southern Watermelon Growers Assn., J. J. Parrish, Pres., has low bid at \$49,700 from W. H. Spooner, Tifton, for office bldg.; Daniell & Beutell, Archts., Georgia Sav. Bk. Bldg., Atlanta. 10-2

Okla., Bartlesville—Indian Territory Illuminating Oil Co., A. V. Hoenig, Vice-Pres., Commerce Exch. Bldg., Oklahoma City, has indefinitely postponed erection of \$500,000 office bldg.; Keene & Simpson, Archts., Land Bk. Bldg., Kansas City, Mo. 9-4

Okla., Oklahoma City—Starrett Investing Corp., 101 Park Ave., New York, revised plans for Ramsey Bldg.; erect 33-story bldg. instead of 31-story structure lately noted; \$3,000,000 set-back at 9th, 11th, 15th, 17th, 20th and 31st floors, probably not erect garage section; 2 top floors for Skyline Club; struct. steel frame limestone base, brick with stone trim above, marble lobby, marble wainscoting, high-speed elevators, refrigerated drinking water system in corridors, 36,000 sq. ft. office space; Walter W. Ahlschlager, Inc., Archts., 10 N. Clark St., Chicago, Ill., and 565 Fifth Ave., New York; Starrett Bros., Inc., Contrs., 8 S. Dearborn St., Chicago, and 101 Park Ave., New York. 9-11

Tex., Dallas—Southland Life Insurance Co. considers purchasing Insurance Bldg. and connecting with Southland Life Insurance Bldg.

Tex., Pampa—Coombs-Worley plans office bldg.; 100x100 ft., 4 or more stories; W. A. Kaufman, Archt.

Churches

Ala., Mobile—Stone St. Baptist Church, Rev. M. C. Cleveland, Pastor, having plans drawn by W. A. Rayfield & Co., Archts., Drawer 649, Birmingham, for \$30,000 bldg.; brick and stone, 2 stories, 60x100 ft., pine floors, conc. and stone foundation, comp. shingle roof; furnishings, equipment, etc., \$10,000. Address Archts. See Want Section—Building Material and Equipment.

Fla., Coral Gables, Miami—First Presbyterian Church, Coral Gables, Rev. Willis O. Garrett, Pastor, purchased Coral Gables Bank Bldg.; probably remodel for church.

Ga., Columbus—First Church of Christ, Scientist, erect Sunday school as first unit of bldg., Wynnton Rd.; brick, 1 story, 38x80 ft., conc. footings, oak floors, slate roof; T. Firth Lockwood, Archt., Murrah Bldg.; drawing plans.

Okla., Cleveland—Baptist Church, Rev. Chas. Richardson, Pastor, having plans drawn by W. A. Rayfield & Co., Archts., Drawer 649, Birmingham, Ala., for \$25,000 bldg.; brick and stone, 2 stories, 50x80 ft., pine floors, conc. and stone foundation, comp. shingle roof; furnishings, equipment, etc., \$8000. Address Archts. See Want Section—Building Material and Equipment.

Okla., Okemah—First Christian Church, J. E. McKinney, member, Bldg. Comm., erect brick and stone bldg.; 1 story.

Tex., Plainview—Plainview New Treatment Baptist Church, Rev. B. A. Theredge, Pastor, plans building.

City and County

La., Abbeville—Vermilion Parish Police Jury, P. U. Broussard, Sec., plans new jail.

La., Crowley—Acadia Parish Jury have plans completed in about 30 days to remodel courthouse; plastering, marble and tile work, millwork, painting, plumbing, wiring, etc.; Wm. R. Burk, Archt., Balter Bldg., New Orleans.

Ga., East Point—City, Dr. J. A. Yeast, Chmn., Bond Comsn., has low bid at \$44,970 from L. C. Ellison & Co., 254 Capitol Place, S. W., for city hall; Wm. J. J. Chase, Archt., 140 Peachtree St., N. E., both Atlanta. 9-25

Md., Baltimore—Board of Awards receives bids Oct. 15 for elevator, 5-story Police Headquarters Bldg., Fallsay and Fayette St. 9-18

Md., Baltimore—Board of Awards has low bid at \$10,974 from DeCon & Chidlaw, Eutaw and Biddle Sts., for alterations to No. 44 Engine House, and at \$7893 from T. F. Watts 213 Mt. Royal Terrace, for 3 hose towers; O. Eugene Adams, Archt., 329 N. Charles St. 10-2

Okla., Blackwell—Kiwanis Club interested in erection of \$40,000 library.

Okla., Chandler—Lincoln County Bd. of Commrs. opens bids Oct. 13 for jail; brick, 2 stories, \$25,000; A. C. Davis & Sons, Archts., Shawnee. 10-2

Tex., Corpus Christi—Nueces County Bd. of Commrs., Nat. Denton, Judge, receives bids Oct. 16 for 5-story and basement addition to courthouse and remodeling present structure; addition 61x53 ft., brick, terra cotta, struct. clay tile and rein. conc., tile roof, metal lath and plaster, metal partitions, metal windows, screens, conc. terrazzo and tile floors; \$100,000; separate bids for plumbing, heating, elect. work, elevators and jail equipment; Dielmann & Levy, Archts.-Engrs., State Natl. Bank Bldg. 9-25

Tex., Menard—Menard County votes Oct. 18 on \$80,000 courthouse and jail bonds.

Tex., San Antonio—City, C. M. Chambers, Mayor, has low bid at \$11,979 from H. J.

Tex., Houston—John Kalb, 909 Meek St., erect \$18,000 residence, North Blvd., Edgemont; Colonial type, 2 stories, 41x38 ft., 2 baths, lavatory, gas steam heat, 3-car garage and servants' quarters, automatic lawn sprinkler; Fred W. Heidebreder, Archt., Brookline St.; ready for bids.

Tex., Houston—H. Green, 2301 Cleburn St., strated work on 4 brick veneer duplexes, 1200 Chartres St.; 2 stories; \$20,000.

Tex., Houston—Dr. Edw. E. Griffey, 1625 Main St., erect \$20,000 residence, Troon Rd.; Harry D. Payne, Archt., Kirby Bldg.; bids in.

Tex., San Antonio—C. W. Hotchkiss, 111 E. Ridgewood St., has low bid at \$16,000 from W. H. Carrington for residence; Richard Vander Straten, Archt., Travis Bldg. 9-18

Tex., San Antonio—W. R. Stout, 2034 W. Woodlawn St., erect \$15,000 residence, Primrose Ave. and Wintergreen St., Blue Bonnet Hills; Spanish type, struct. clay tile, stucco, rein. conc. foundation, metal lath, wood and tile floors, 2 tile baths, tile roof; Harvey P. Smith, Archt., Natl. Bk. of Commerce Bldg.; W. E. Simpson Co., Engrs., Milam Bldg.; drawing plans.

Tex., San Antonio—Richard Vander Straten, Archt., Travis Bldg., has low bid at \$12,800 from W. H. Carrington, 747 E. Houston St., for residence, Terrell Hills; plans by owner. 10-2

Tex., San Marco—A. E. Crain, W. San Antonio St., soon start work on 10-room ranch house, Nowotny Place near San Marco; \$10,000, Spanish type, Delco lighting.

Government and State

D. C., Washington—Additional contractors estimating on \$7,500,000 office bldg. for House of Representatives, bids Oct. 28 by Architect of the Capitol, David Lynn; G. E. Driscoll Co., 550 Union St.; D. M. Contracting Co., 2058 Fulton St., both Brooklyn, N. Y.; Strandberg Bros. Co., Transportation Bldg., Chicago, Ill.; Turner Construction Co., 420 Lexington Ave., New York. 9-11

La., Baton Rouge—State Bldg. Comn., Huey P. Long, Gov., authorized Weiss, Dreyfous & Seifert, Archts., Maison Blanche Bldg., New Orleans, to proceed with plans for \$5,000,000 State Capitol; height equal to 30 stories, first 4 floors 340 ft. long, 150 ft. wide, next two floors smaller, then 70x70-ft. tower with mechanical rooms and 15-ft. lamp above; 17 floors for office with about 4000 sq. ft. of office space for each floor; 3 high-speed elevators. 2-27

Md., Baltimore—United States Immigration Station, Chas. H. Holtzman, Custodian, receives bids Oct. 21 for repairs, painting, etc.

S. C., Parris Island—Additional contractors estimating on alterations to 5 bldgs., bids Oct. 15 by Constructing Quartermaster, U. S. Marine Corps; Charleston Constructors, Inc., 38 Broad St., Charleston, S. C.; Dietrich Bros., Pleasant and Davis Sts., Baltimore, Md.; R. J. Whalley & Co., 404 E. Bay St., Savannah, Ga.; J. L. Powers, 22 7E Main St., Bennettsville, S. C.; Townsend Lumber Co., N. Towers St., Anderson, S. C. 10-2

Tex., Randolph Field—Constructing Quartermaster, Capt. A. W. Parker, will call for bids for 2 social center bldgs. for enlisted men, Randolph Field; open bids about Nov. 20; conc. foundation, tile and stucco, wood floor and roof constr., steel casement sash, hardwood floors, 1 story, 54.4x90 ft., maple, pine, linoleum and conc. floors, Mission tile roof, \$30,000 each; plans and engineering by Office of Constr. Quartermaster. See Want Section—Building Material and Equipment. 9-25

Tex., Randolph Field—Constructing Quartermaster, Capt. A. W. Parker, receives bids Oct. 30 for non-commissioned officers, duplex bldgs.; Mission type, stucco, masonry, 2 stories, 57x37 ft., tile roof. 10-2

Va., Quantico—Additional contractors estimating on 3 barrack bldgs., Marine Barracks, bids Oct. 15 by Bureau of Yards and Docks, Navy Dept., Washington, D. C.; Riggs, Distler & Co., Inc., (mech. and elect.) 216 N. Calvert St.; C. W. Schmidt, 226 Hearst Tower, both Baltimore, Md.; A. K. Adams Co., 542 Plum St., Atlanta, Ga.; Batson-Cook Co., Inc., West Point, Ga.; Wm. MacDonald Construction Co., Synd. Tr. Bldg., St. Louis, Mo.; Brooklyn & Queens Screen Manufacturing Co., Inc., 17 Williams St., Brooklyn, N. Y. 10-2

W. Va., Clarksburg—Treasury Dept., Jas. A. Wetmore, Act. Supv., Archt., Washington, D. C., probably call for bids latter part Dec. or early in Jan. for \$425,000 post office, custom house and court house. 6-5

Hospitals, Sanitariums, Etc.

D. C., Washington—Following firms estimating on administration bldg., U. S. Veterans Hospital, Mt. Alto, bids Oct. 21 by U. S. Veterans Bureau, Arlington Bldg.: North-Eastern Construction Co., 6 W. Madison St.; W. Reid Hayden, 105 Cheapside; Riggs, Distler & Co., Inc., 216 N. Calvert St.; Dietrich Bros. (material) Pleasant and Davis Sts.; Consolidated Supply Co., (material) 1102 N. Charles St.; Gurney Elevator Co., 100 Hopkins Place, all Baltimore, Md.; Lee Pascall, Amer. Natl. Bk. Bldg., Richmond, Va.; Fanning & Sweeney, Inc., Jefferson Bldg., Greensboro, N. C.; Henry B. Ryan Co., 500 N. Dearborn St.; Hallbauer-LaBahn, Inc., 844 Rush St., both Chicago, Ill.; J. P. Cullen & Son, Janesville, Wis.; Murch Bros. Construction Co., Ry Exch. Bldg., St. Louis, Mo.; Virginia Engineering Co., Inc., First Natl. Bk. Bldg., Newport News, Va.; C. A. Hofferberth Construction Co., Dist. Natl. Bk. Bldg.; Bahen & Wright, 916 Rhode Island Ave., N. E.; Skinker & Garrett, 1719 I St., N. W.; Geo. E. Wyne, 2539 Pa. Ave., N. W.; Boyle-Robertson, Inc., Evans Bldg.; Otis Elevator Co., 810 18th St., N. W.; Mechanical Engineering & Construction Corp., Mills Bldg.; Warsaw Elevator Co., 612 F St., N. W.; H. Herfurth, Jr., Inc., Dist. Natl. Bk. Bldg.; Standard Engineering Co., 2129 I St., N. W.; DeSibour Construction Co., 1200 15th St., N. W.; Arthur L. Smith Co., 2539 Pa. Ave., N. W.; Crane Co., Inc., (material) 1225 I St., N. W.; Standard Art Marble & Tile Co., 334 C St., N. W.; Truseon Steel Co., (windows) Hill Bldg.; Lally-Rohlander & Co., (material) 1756 M St., N. W.; E. T. Burrows Co., (screens) 2539 Pa. Ave., N. W.; Millwork Sales Corp., 1334 11th St., S. E., all Washington; Warner Elevator Mfg. Co., 2613 Spring Grove Ave.; Cincinnati Fly Screen Co., Gest and Evans Sts.; Pease Co., (millwork) Mitchell Ave. and B. & O. R. R., all Cincinnati, O.; W. P. Rose Co., Box 1522, Washington, and Wayne Natl. Bank Bldg., Goldsboro, N. C.; C. A. Hooper Co., 453 W. Gilman St., Madison, Wis.; Interstate Heating & Plumbing Co., Jackson St., Omaha, Neb.; Kane Manufacturing Co., (material), Kane, Pa.; Vendor Slate Co., Inc., (material), Easton, Pa.; Kewanee Boiler Corp. (heating), Kewanee, Ill.; J. S. Thorn Co., Allegheny Ave. and 20th St., Philadelphia, Pa.; Miller Manufacturing Co., 600 Stockton St., (material), Richmond, Va.; Westbrook Elevator Mfg. Co., Spring St., Danville, Va.; National Contracting Corp., Laurel, Md.; W. J. Baker Co., (screens), Newport, Ky.; Lehigh Structural Steel Co., (material), Allentown, Pa. 9-25

Ky., Lexington—United States Veterans Bureau, L. H. Tripp, Ch., Constr. Div., Arlington Bldg., Washington, D. C., receives bids in triplicate until Oct. 28 for store house, U. S. Veterans Hospital; including paving and grading; work includes excavating, rein. conc. constr., hollow tile, architectural terra cotta, iron work, steel sash, metal stall partitions, slate roofing, metal lathing, roof ventilators, etc., plumbing, heating, elect. work; also outside sewer and water distribution systems, underground and return lines and elect. service connections; drawings from Constr. Div.

Md., Baltimore—Children's Hospital School, Greenspring Ave. and 41st St., Dr. W. S. Baer, 4 E. Madison St., interested, selected Herman F. Doeelman, Balto. Tr. Bldg., as struct. engineer for \$175,000 hospital; brick, stone, 2 stories; Buckler & Fenhagen, Archts., 325 N. Charles St., drawing preliminary plans. 10-2

Miss., Gulfport—United States Veterans Bureau, Arlington Bldg., Washington, D. C., has low bid at \$85,600 from Sanford Bros., Inc., 301 Washington Ave., Montgomery, Ala., for sewage disposal plant, U. S. Veterans Hospital. 9-25

Tex., Quanah—C. W. Murchison, Dallas, erect brick, stone, steel and rein. conc. hospital; 3 stories; Herbert M. Greene, LaRoche & Dahl, Archts., Construction Indus. Bldg., Dallas.

Tex., Sinton—Leo M. Dielmann, Archt., 306 E. Commerce St., San Antonio, drawing plans for \$40,000 San Patricio General Hospital; fireproof, brick and tile, 3 stories, conc. frame; X-ray dept., laboratories; bids in Oct. 3.

Hotels and Apartments

Fla., St. Augustine—St. George Hotel, Carl Meeks, Lessee, start work about Oct. 15 on reconstruction and renovation program.

Ky., Lawrenceburg—Taylor Bros. ready for bids about Oct. 25 for \$16,000, 2-story, 100x66 ft. addition to building for hotel; Gillig & Churchill, Archts., Fayette Bank Bldg., Lexington.

Tenn., Chattanooga—Claude Smith, First Natl. Bank Bldg., receives bids Oct. 10 for 2-story and basement, 42x72 ft., brick apart-

ment, 10-12 Mississippi Ave.; tile roof, hardwood and tile floors, steam heat; R. Maxwell James, Archt., Provident Bldg.

Va., Lynchburg—Blue Ridge Apartment and Building Corp., 2925 Rivermont Ave., has permit for \$60,000, 3-story, 12-apartment in old Rivermont Park.

Miscellaneous

Ala., Verbena—Booker Washington Assn., Wm. R. Cowart, Pres., 16 N. Lawrence St., Montgomery, receives bids Dec. 1 for \$19,000, 1-story, 48x108 ft., brick veneer orphanage and home for aged; rubber shingle roof; Jones & Marsh, Archts., Vandiver Bldg., Montgomery. See Want Section—Building Material and Equipment.

Ark., Hot Springs National Park—Fountain Lake Corp., Lewis Hays, Pres., Community Bank Bldg., plans \$100,000 improvements at Fountain Lake, including number of cottages.

Ark., Little Rock—Little Rock Boys' Club, J. Curran Conway, Chmn., Bldg., Comm. American Southern Trust Co., soon have plans completed for \$60,000, 2-story and basement, 90x100 ft., fireproof clubhouse, 8th and Scott Sts.; Thompson, Sanders & Glinochio, Hall Bldg., and Wittenberg & Deloney, Home Insurance Bldg., Archts.

Fla., Miami—Coral Way Amusement Corp., Calumet Bldg., has plans by Chas. P. Neider, Calumet Bldg., for athletic center, Coral Way and 19th Ave.; Belsham, Jorgensen & Schreier, Struc. Engrs., Calumet Bldg.; bids in.

Mo., St. Louis—John C. Meyers, 3641 Washington Blvd., interested in converting old Courthouse, Broadway and Market St., into planetarium; proposes to raise \$150,000 to \$200,000 for improvements.

Okl., Tulsa—Tulsa County votes Nov. 4 on \$500,000 bonds for erection auditorium, livestock pavilion, building for swine exhibits and one for sheep exhibits, grandstand to seat 15,000 people, also provide sewage and structures, walks, roads, landscaping, etc.; John T. Kramer, Sec.-Mgr., Tulsa State Fair. 9-19-29

Tex., Raymondville—Women's Club, care Mrs. S. Lamar Gill, erect \$10,000 frame and stucco clubhouse; Lloyd Mellor, Archt., Harlingen.

W. Va., Clarksburg—Boyd Anderson Restaurant Corp., Frank H. Johnson, Pres.-Gen. Mgr., 407 W. Main St., having plans prepared for improvements to restaurant.

Railway Stations, Sheds, Etc.

La., New Orleans—Gulf, Mobile & Northern R. R. Co. of Louisiana, Wm. O. Lewis, Whitney Bldg., has plans approved by Louisiana Public Service Comn. for freight terminals along Industrial Canal.

Tex., McAllen—St. Louis, Brownsville & Mexico Ry. Co., care Missouri Pacific Lines, C. S. Kirkpatrick, Ch. Engr., Union Station, Houston, erect 1-story, 126x40 ft., brick, tile and rein. conc. warehouse; bids in.

Schools

Ala., Roanoke—Hanley Manufacturing Co. having plans prepared by R. Kennon Perry, Mortgage Guarantee Bldg., Atlanta, Ga., for 1-story, brick and frame kindergarten building; comp. roof, hardwood floors.

Ark., Conway—Hendrix-Henderson College Trustees soon begin work on \$150,000 science building; 3 stories, 60x130 ft.; Wittenberg & Deloney, Archts., Home Insurance Bldg., Little Rock. 10-10-29

Ark., Hughes—Hughes Rural Special School Dist., R. C. Nickle, Pres., erect \$50,000, 2-story and basement, brick and conc. high school.

Fla., Gainesville—Following contractors estimating on 2-story and basement, rein. conc., hollow tile, brick, stone trim infirmarium building at University of Florida, bids Oct. 13 by State Bd. of Control, P. K. Yonge, Chmn., Hotel Carling, Jacksonville; Grahn Construction Co., Red Rock Bldg., Atlanta, Ga.; Hadlow Construction Co., 32 W. Forsyth St.; H. S. Baird, Inc., and Keller Construction Co., both Atlantic Bank Bldg.; A. F. Perry, Jr., Inc., Bisbee Bldg.; J. M. Raymond Co., 418 Hilderbrandt Bldg.; O. P. Woodcock, 421 Duval Bldg.; G. W. Hessler, Inc., 111 W. Ashley St., all Jacksonville; Fisher & Reece, Box 219, Ocala; Rudolph Weaver, Archt. for Bd. of Control, Peabody Hall, Gainesville. 10-2

Ga., Macon—J. Andrew Jackson, 110 Summit Ave., erect 2-story and basement, brick, 4-unit apartment; comp. roof.

Ga., Statenville—Statenville Consolidated School Dist. erect grammar and high school; \$18,000 bonds recently voted.

La., Crew Lake—Richland Parish School Bd., Rayville, soon call for bids for \$30,000, 6-classroom school at Rhymes and \$20,000 4-classroom school at Crew Lake, both one story, brick, stone trim; J. W. Smith & Associates, Archts., Ouachita Natl. Bank Bldg., Monroe.

La., Sugartown—Sugartown School Dist. defeated \$20,000 school bonds. 8-21

Md., Baltimore—Public Improvement Comsn., H. J. Leimbach, Supvg. Engr., has low bid at \$213,900 from P. C. Streett Engineering Co., 404 St. Paul Place, for addition to school No. 84, Johnson and Heath Sts.; E. H. Glidden, Jr., 18 E. Lexington St.; Reeder, Elser & Akers, Mech. Engrs., 916 N. Charles St.; Henry Massari, Struc. Engr., 328 N. Charles St. 9-25

Md., Baltimore—Public Improvement Comsn., H. J. Leimbach, City Hall, receives bids Oct. 22 for \$175,000 addition to School No. 53 (Margaret Brent), 26th and St. Paul Sts.; 3 stories and basement, 100x120-ft., 12 classrooms and auditorium; Bernard Evander, Archt., 20 E. Lexington St.; Henry Adams, Mech. Engr., Calvert Bldg.; Henry G. Perring, Struc. Engr., Court Square Bldg.; contractors estimating: David M. Andrew Co., 26th and Sisson Sts.; P. C. Streett Engineering Co., 404 St. Paul St.; Charles L. Stockhausen, Gay and Water Sts.; Price Construction Co., Maryland Trust Bldg.; Laechi Construction Co., Munsey Bldg.

Md., Rising Sun—Cecil County School Bd. H. T. Rhul, Supt., Court House, Elkton, erect 2-story, 72x127 ft., brick high school; Clyde N. & Nelson Friz, Archts., Lexington Bldg., Baltimore. 8-14

Md., Towson—Baltimore County School Bd., S. Shoemaker, Pres., having plans revised by Smith & May, Baltimore Trust Bldg., Baltimore, for 1-story, brick school at Chatto-lanne.

Mo., Jennings—Bd. of Education having plans prepared by Hoener, Baum & Froese, 3605 Laclede Ave., St. Louis, for grade school.

Mo., Lilbourn—Bd. of Education, F. M. McClain, Pres., soon ready for bids for addition and alterations to high school; \$30,000, 3 stories, 54x72 ft., brick, comp. roof, wood floors; Bonsack & Pearce, Archts., 411 Olive St., St. Louis. 5-29

Mo., St. Joseph—Bd. of Education, A. L. Loving, Sec., ready for bids in 10 days for Hyde School in South St. Joseph; ready for bids in about 90 days for Ernst-Drug School, possible change to Lindbergh; Webb Seimens, First Natl. Bank Bldg., Archt. for latter structure; Wm. B. Ittner, Inc., Supvg. Archt., Continental Life Bldg., St. Louis. 8-28

N. C., Asheville—Buncombe County Bd. of Education, A. C. Reynolds, Supt., ready for bids in day or two for \$50,000, brick, 8-classroom and auditorium school in Sand Hill Dist.; has low bid at \$7701 from L. Riddle for 1-story and basement, 72x70 ft., reip. conc. frame gymnasium and at \$5295 from Edmund Tyler, Jr., for 3-story and basement, 32x20 ft., 2-classroom and cafeteria addition in Sand Hill Dist.; W. J. East, Archt., Courthouse. 8-21

Okla., Chillico—Chillico School, L. E. Correll, Supt., plans \$80,000 dormitory.

Okla., Drumright—Tital Oil Co., O. P. Barton, 602 S. Cheyenne St., Tulsa, erect \$20,000, 2-story, 35x118-ft. brick school.

Tenn., Knoxville—Bd. of Education, Homer P. Shepherd, Supt., considering erecting North Knoxville Junior High School to accommodate 1000 pupils.

Tenn., Lookout Mountain—Lookout Mountain School Dist. No. 2, Don Gault, Chmn., Bd. of Trustees, erect \$27,000, 1-story, 130x50 ft. brick and stone veneer school; wood floors, comp. shingle roof; Gosnell & Bradbury, Archts., Volunteer Bldg.; bids in. See Want Section—Building Material and Equipment.

Tex., Bryan—Bryan Ind. School Dist. erect \$35,000, brick and rein. conc. unit at Bowie School; also \$40,000 brick and rein. conc. high school for negroes; Giesecke & Harris, Archts., Norwood Bldg., Austin; L. D. Royer, Mech. Engr., Smith-Young Tower, San Antonio.

Tex., Denton—College of Industrial Arts, H. Fitzgerald, receives bids Oct. 11 for \$150,000, 3-story, 113x145 ft., brick, rein. conc. and stone dormitory; H. C. Knight, Archt., Wilson Bldg., Dallas.

Tex., Goodland—School Bd. plans \$25,000 school building.

Tex., Ozona—School Bd. has plans by Peters, Strange & Bradshaw, Lubbock, for \$170,000 high school.

Tex., San Antonio—Bd. of Education, Dr. J. A. McIntosh, Pres., purchased site, Gulf and Gorman Sts., for elementary school.

Va., Bloxom—Bloxom School Dist. plans voting on \$60,000 bonds.

W. Va., Point Pleasant—School Bd. receives bids Oct. 20 for Wahama High School.

Stores

Ga., Columbus—S. H. Kress & Co., 114 Fifth Ave., New York, plans addition to store, Front Ave. and 11th St.

Md., Baltimore—M. D. Williamson, 4510 Roland Ave., ready for bids about Oct. 20 alterations to store and apartment, 2201 N. Charles St.; 3 stories, 20x42 ft., stone and brick; wood floors; G. A. McGinnis, Archt., 510 Hollen Road.

Md., Towson—Stebbins-Anderson Coal Co., York Road, receives bids Oct. 14 for \$50,000, 2-story, brick store and garage on York Road; W. H. Emory, Jr., Archt., Baltimore Trust Bldg., Baltimore; H. W. Hitchcock & Son, 920 E. North Ave.; Thomas Hicks & Sons, Charles St. and Stratford Road; C. L. Kern, 612 McCabe Ave.; Henry A. Knott, 2107 N. Charles St.; Morrow Bros., Fidelity Bldg.; J. W. Schoelkopf, 400 Lyman Ave.; John E. Marshall & Sons, 117 South St.; L. L. Chambers, 36th St. and Roland Ave.; Ralph MacMurray, 9 E. Pleasant St., all Baltimore; L. R. Andrew and O. C. Hook, Riderwood; Samuel F. Coale, Ruxton; J. M. Hollopeter, Wm. H. Sands, L. J. Stebbins, C. Will and Rudolpha Nolker, all Towson; John A. McCann, Fallston; J. Morgan Pearce and E. W. Schoelkopf, Phoenix; W. Frank Porter, Baldwin; Robert and J. Melvin Roberts, Cockeysville; Robert E. Shock, Lutherville; Emory Leight, Herford.

Mo., University City, St. Louis—Harold Stinson, 1135 Amherst St., has permit for \$12,000, 50x14 ft. brick building, 7211 W. Moreland St.; tile roof, hot water heat.

Okla., Enid—Mrs. L. Fossett has low bid from Bass Construction Co. for \$24,000, 2-story, 50x142 ft., brick store and rooming house, 600 block N. Independence Ave.; Roy W. Shaw, Archt., will supervise constr. 9-25

Tex., Crystal City—Messrs. Butler, Pullian, Jackson and Ready soon call for bids for 1- and 2-story, brick and tile store; cast stone trim, oak and cement floors; Will N. Noonan Co., Archts., Builders Exchange Bldg., San Antonio.

BUILDING CONTRACTS AWARDED

Association and Fraternal

Tex., Dallas—Mosher Steel & Machinery Co., 5209 Maple St., has contract for struct. steel for \$800,000 Central Y. M. C. A. bldg.; Anton F. Korn, Jr., Archt., Thomas Bldg.; Nathan Wohlfield, Contr., 411 Construction Bldg., advises no other contracts let. Contract noted 10-2

Bank and Office

Md., Hyattsville—Dr. Jacob Waldman erect \$50,000 office bldg., Rhode Island and Johnson Aves.; work started.

Okla., Bartlesville—Following sub-contracts let for addition to Phillips Petroleum Co., office bldg.: Stone, Sutermeister Cut Stone Co., Troost St. and Belt Line; struct. steel, Kansas City Structural Steel Co., 21st St. and Metropolitan Ave., both Kansas City, Mo.; brick, United Brick & Tile Co., Court Arcade Bldg.; wiring, Allen Electric Co., Mayo Bldg., both Tulsa, Okla.; heating and plumbing, Sell-Orr Heating Co., Independence, Kan.; Keene & Simpson, Archts., Land Bk. Bldg.; Rucks-Brandt Construction Co., Contr., Thompson Bldg., Tulsa. 9-4

Churches

Ga., Atlanta—Woodland Hills Baptist Church, Rev. E. R. Shropshire, Pastor, erecting bldg., Vickers St. and Woodland Ave., S. E.

La., New Orleans—National Sash & Door Co., Inc., 600 N. Dupre St., has millwork contract for \$125,000 Our Lady Star of the Sea R. C. Church; piling, J. Ed Hemenway, 4130 Baudin St.; rein. steel, pans and joist Truscon Steel Co., Canal Bk. Bldg.; Wogan & Bernard, Archts.; Chas. Gilbert Construction Co., Contr., both Canal Bk. Bldg. 10-2

N. C., Asheville—Free Will Baptist Church, Rev. L. E. Ballard, Pastor, considers erecting bldg., Union Valley.

N. C., Monroe—Amity Presbyterian Church, near Monroe, erect \$10,000 bldg.; brick, 1 story; J. M. McMichael, Archt., Bldrs. Bldg., Charlotte; bids in.

Tenn., South Pittsburg—Methodist Church erect \$24,000 bldg.; brick and limestone, 1

Tex., Houston—Paris Brothers, Inc., 803 Main St., remodel storeroom, dividing into two storerooms to be leased to Edison Brothers Stores Co., Inc., 505 N. Seventh St., St. Louis, Mo., and Grayson Shops, Inc., 16 Maiden Lane, New York.

Tex., San Antonio—Donald M. Vick, 1121 Broadway, erect 1-story, 25x130 ft., brick and tile store; Will N. Noonan Co., Archts., Builders Exchange Bldg.

Theatres

Okla., Enid—G. E. Blumenauer, Archt., Masonic Bldg., preparing plans and ready for bids about Oct. 20 for \$780,000, 17-story, 125x200 ft., brick, rein. conc. and stone theatre and commercial building. 8-21

Tex., Seguin—The Development Co. receives bids Oct. 11 for \$20,000, 1-story and balcony, 38x96 ft., conc., hollow tile, brick motion picture theater; wood, cement, asphalt tile and tile floors, tar and gravel roof; Marvin Eickenroht & Bartlett Cocke, Archts., Maverick Bldg., San Antonio.

Va., Newport News—Newport News Theatre Corp., L. U. Noland, V-P., 319 54th St., ready latter part of October for \$270,000, rein. conc. and steel, stadium type theatre; McDonald & Co., Archt.-Engr., Southeastern Trust Bldg., Atlanta, Ga.; address proposals to Publix Theatres, Inc., Lessee, Paramount Bldg., New York, for equipment and furnishings. 9-25

Warehouses

Md., Baltimore—State, F. Brook Matthew, Ch. State Tobacco Inspector, Charles and Conway Sts., remodel 4-story, 150x120 ft., brick warehouse and erect 2-story addition; bids in.

Okla., Blackwell—Stewart Hardware Co. soon start work on warehouse on S. Main St.

Tex., San Antonio—Cleveland Tractor Co., Cleveland, O., J. W. Francis, 1113 W. Houston St., San Antonio, purchased 6-acre site and plans salesroom and warehouse building, S. Cherry St. and Missouri, Kansas and Texas R. R. tracks.

story, comp. roof, steam heat; R. H. Hunt Co., Archt., James Bldg., Chattanooga; Hogan Bros., Contrs., South Pittsburg.

Tex., Weatherford—First M. E. Church, R. G. Boger, member, let contract for \$20,000 bldg. to W. D. Winston, Weatherford; conc. tile, 2 stories and basement, 79x46 ft.; Wm. C. Meador, Archt., Dan Waggoner Bldg., Fort Worth. 9-25

City and County

Ga., East Point—City, Dr. J. A. Yeast, Chmn., Bond Comsn., let contract at \$44,970 to L. C. Ellison & Co., 254 Capitol Place, S. W., Atlanta, and Ensley, Ala., for city hall and auditorium; semi-fireproof, brick, stone trim, conc. footings, comp. roof, 2 stories and basement, 35x66 ft. and 63x130 ft. tile and hardwood floors; auditorium seat 1250; Wm. J. J. Chase, Archt., 140 Peachtree St., Atlanta.

Mo., St. Louis—Board of Public Service let contract to W. C. Harting Construction Co., International Life Bldg., for \$15,000 fire station alteration, 1219 S. Vandeventer Ave. 5-29

N. C., Gastonia—C. W. Spencer, Fairmount Park, has contract for \$20,000 public library; brick and frame, 1 story and mezzanine, 60x84 ft., comp. roof and floors, conc. foundation; new equipment, \$2,000; Hugh E. White, Archt., 207 W. Fourth Ave. See Want Section—Building Material and Equipment. 2-13

Tex., Beaumont—American Elevator & Machine Co., Inc., 500 E. Main St., Louisville, Ky. (Southern States zone office, 308 Pioneer Bldg., Birmingham, Ala.), has elevator contract for \$1,000,000 Jefferson County courthouse; elevator contract lately incorrectly noted let to American Elevator Co., 117 Cedar St., New York. 9-25

Tex., Braunfels—Comal County Bd. of Commrs. let contract at \$40,635 to A. C. Moeller, New Braunfels, to remodel courtroom in courthouse and erect jail; face brick, struct. clay tile, rein. conc., cast stone, stories and basement; jail equipment to Southern Prison Co., 4500 S. Presa St., San Antonio, at \$19,484; Jeremiah Schmidt Archt., New Braunfels; W. E. Simpson Co., Engr., Millam Bldg., San Antonio. 10-2

Dwellings

Ala., Birmingham—H. G. Fain, 1720 Rose-land Drive, erect brick veneer residence; 1 story, comp. roof, furnace; Edw. D. Slater, Archt., Martin Bldg.; R. R. Ruff, Contr., 2015 Avenue G.

Ala., Birmingham—Walter Dean, 2028 N. Fourth Ave., erect \$17,500 residence, Redmont Park; brick veneer, 2 stories, 35x45 ft., slate roof, steam heat Chas. H. McCauley, Archt., Jackson Bldg.; Bryce Estes Building Co., Contr., Woodward Bldg.

Ala., Birmingham—Mark Hodo, 2016 N. Fourth Ave., erect \$10,000 stone veneer residence, Colonial Hills; 2 stories, 28x40 ft., comp. roof, furnace Chas. H. McCauley, Archt., Jackson Bldg.; G. A. Paul, Contr., 2337 S. 20th St.

Ala., Tuscaloosa—Gorden Palmer, care City Natl. Bank, let contract to J. O. Hollaman, Tuscaloosa, for brick veneer residence, Druid Court; 2 stories, oak floors, brick foundation, comp. shingle roof; Miller & Martin, Archts., J. A. Lewis, Engr., both Title Guar. Bldg., Birmingham. 10-2

D. C., Washington—W. C. & A. N. Miller, 1119 Seventeenth St., N. W., erect dwelling, 4317 Forest Lane, after plans by G. E. MacNeil, Archt., 1119 17th St., N. W.; owner builds.

Ala., Huntsville—Shelby Cullom erect \$10,000 brick residence; 2 stories, 50x52 ft., asbestos roof, steam heat; E. L. Love, Archt., Tenn., Valley Bk. Bldg.; C. E. Baxter, Contr.

Fla., Eagle Lake—W. S. Door erect \$15,000 tile and stucco residence; 2 stories, 60x32 ft., hardwood floors, comp. roof, gas heat; Tilden & McMichael, Archts., Central Arcade; low bid from R. E. Secord, 309 Beymer Bldg., both Winter Haven.

Fla., Miami—Geo. P. Brett, 60 Fifth Ave., New York, let contract at \$10,500 to Sandquist Construction Co., S. W. 27th Ave., Miami, for rein. conc. water tower on estate; 80 ft. high; above firm erecting \$75,000 residence, garage, etc., contract noted July 17; Wade & Oemler, Archts., Exch. Bldg., Miami. 7-17

Fla., Miami Beach—Mead Bros., Lincoln Rd., erect dwelling, N. Bay Rd.; V. H. Nellenbogen, Archt., 925 Lincoln Rd.; Mead Construction Co., Contr., 1000 Lincoln Rd.

Fla., Winter Haven—M. B. Coe, Lake Eloise, erect 2 frame dwellings; 1 story, 32x21 ft., hardwood floors, comp. roofs; Emor & Layton, Contrs., P. O. Box 1286.

Ga., Atlanta—Mrs. Pauline R. Karmansky, 1045 Washington St., S. W., erect brick veneer residence, 1090 Woodland Ave., S. E.; 6 rooms and bath, comp. shingle roof, hot air heat; owner builds.

Ga., Atlanta—Mrs. John C. Sibley, 1171 West View Drive, S. W., erect brick veneer residence, 1432 Greenberry Ave., S. E.; 1 story, 6 rooms and bath, comp. shingle roof; owner builds.

Ga., Atlanta—G. E. Crowe, 633 Gresham Ave., S. E., erect brick veneer residence, 814 Moreland Ave., S. E.; 1 story, 6 rooms and bath, comp. roof; owner builds.

Ga., Elberton—Jose Canales erect brick residence, Tate St.; 1 story and basement, 6 rooms, hardwood floors, comp. roof; O. P. Cochran, Contr.

Ga., Elberton—Grover Burton erect brick residence, Myrtle St.; 1 story and basement, 6 rooms, hardwood floors, comp. roof; O. P. Cochran, Contr.

Md., Baltimore—American Building Co., 5448-56 Jonquil Ave., erect 5 dwellings, 5448-56 Jonquil; stucco, 2 stories, 20x45 ft.; \$15,000; owner builds.

Md., Baltimore—David Kleiman, Bldr., 215 N. Calvert St., erect 18 dwellings, Park Heights Terrace; brick, 2 stories; owner builds.

Md., Baltimore—Clifton K. Wells, Jr., 2538 Old York Rd., erect 2 dwellings, 5209-11 Springlake Way, after plans by Palmer & Lambdin, Archts., 513 N. Charles St.; brick, 2 stories, 45x43 ft. and 66x44 ft., hot water heat; owner builds.

Md., Baltimore—Thos. Butler, care Wyman Building Co., 3804 Grantley Rd., erect stone and stucco residence, Stoneleigh; 2½ stories, 30x30 ft.; Bernard Evander, Archt., 20 E. Lexington St.

Md., Baltimore—Harry L. Dubbelde Co., Gwynns Falls Pkwy. and Longwood St., erect 6 brick dwellings, 2929-30 Gwynns Falls; 2 stories, 19.9x32 ft.; owner builds.

Md., Baltimore—Thos. Mullan, 3945 Greenmount Ave., erect 6 brick dwellings, Ridgemedo Rd.; 2½ stories, 24x36 ft.; owner builds; soon let sub-contracts.

Md., Baltimore—Roland Park Co., 4801 Roland Ave., started work on 6 brick dwellings, Northwood; \$10,000 to \$16,000 each, 2½ sto-

ries, various dimensions; John Ahlers, Archt., 529 N. Charles St.; Robinson & Slagle, Contrs., American Bldg.; Montebello Building Corp., J. S. Downing, Vice Pres.-Gen. Mgr., 2609 Greenmount Ave., erecting 16 dwellings, Northwood, same archt., all in connection with development. 8-7

Md., Baltimore—Herbert L. Venness erect \$10,000 shingle residence and garage, 320 Tumbridge Rd., Homeland; 2½ stories; Gunn, Williamson & Guy, Inc., Contrs., 306 N. Charles St.

Md., Baltimore—Gunn, Williamson & Guy, Inc., 306 N. Charles St., erect 3-story brick dwelling, Guilford; \$20,000; Wrenn, Lewis, Westenhaver & Jencks, Archts., Title Bldg.; owner builds.

Md., Baltimore—Powers Construction Co., 2102 Poplar Grove St., erect 12 bungalows, Echodale Ave.; frame, 1½ stories, 24x32 ft., conc. foundations; J. C. Spedden, Archt., 2715 Harlem Ave.; owner builds.

Md., Baltimore—John Welsh, 11 E. Fayette St., erect 3 dwellings and garages, 417-19 North Bend Rd. and 416 Westgate Ave.; frame, 2 stories, 24x30 ft.; Geo. Wessel, Archt., 601 W. 40th St.; owner builds.

Md., Baltimore—Gunn, Williamson & Guy, 306 N. Charles St., have contract for \$10,000 dwelling, 320 Tunbridge Rd., Homeland; frame, 2 stories, 25x40 ft.; J. Winthrop Wolcott, Archt., 324 N. Charles St.

Md., Baltimore—Mrs. Mary Kirby, 2313 Reisterstown Road, erect residence, Roland Park; 1 story, 26x42 ft.; Henry A. Knott Co., Contr., 2107 N. Charles St.

Mo., Joplin—Geo. F. Smitley, Contr., 904 Jackson Ave., plans several dwellings in addition to one 6-room, brick residence under construction, Roanoke Crest.

Mo., St. Louis—August C. Stohlmann, 6220 S. Kingshighway, erect \$10,000 brick residence, 25x43 ft., hardwood floors, tile baths, dence, 3336 Oak Hill Ave.; 1 story and base-stone foundation, comp. shingle roof, hot air heat; work by sub-contract.

Mo., St. Louis—T. A. Bidwell, 5619 Lansdowne St., erect 2 brick dwellings, 5232-36 Tholoan St.; 2 stories, 26x40 ft., slate comp. shingle roof, hot water heat; \$10,000; plans and constr. by owner.

Mo., St. Louis—J. Szespanski, 45532 Ruskin Ave., erect \$10,000 brick residence, 5064 Queens Ave.; 2 stories and basement, 24x32 ft., hardwood floors, tile bath, comp. shingle roof, hot air heat; work by sub-contract.

Mo., St. Louis—C. B. Rader, 8238 Glen Echo Drive, erect \$10,000 residence, Country Club Addition No. 2; brick, 2 stories, 27x40 ft.; Sours & Hasenbeck, Contrs., 4549 Washington St.

Mo., St. Louis—Theo. Rasmussen erect brick residence, Sutton and Golf Sts.; 1 story and basement, 28x41 ft., hardwood floors, tile bath, tile roof, hot air heat; F. G. Avis, Archt., both 1021 Big Bend Blvd.; work by sub-contract.

Mo., St. Louis—Victor R. Appel, 1600 Big Bend Blvd., erect \$12,000 dwelling, 5820 Itaska St.; brick, 2 stories and basement, 28x28 ft., hardwood floors, tile bath, stone foundation, slate roof, steam heat; work by sub-contract.

Mo., St. Louis—E. L. Hoffmann, 4242 Dewey Ave., erect \$10,000 brick residence, 5857 Delor St.; 2 stories and basement, 27x31 ft., hardwood floors, tile bath, slate roof, stone foundation, hot air heat; V. A. Thomason, Contr., 2548 Gerhard St.

Mo., St. Louis—H. Storek, 5248 Nottingham Ave., erect \$10,000 brick residence, 5720 Park Lane; 1 story and basement, 26x46 ft., hardwood floors, tile bath, stone foundation, asbestos shingle roof, hot air heat; Henry Hinrichs, Contr., 3440 Alabama Ave.

Mo., St. Louis—C. Govert, 4806 Allemania Ave., erect \$10,000 brick residence, 5331 Delor St.; 1 story and basement, 26x46 ft., hardwood floors, tile bath, asphalt shingle roof, hot air heat; work by sub-contract.

Mo., St. Louis—H. O. Stifel, 8200 Church Rd., erect \$10,000 residence, 1268 Sells St.; brick, 2 stories and basement, 26x47 ft., hardwood floors, tile bath, comp. shingle roof, hot air heat; L. J. Graham, Archt., 4885 Natural Bridge Rd.; Wm. Meyer & Sons, Inc., Contrs., 2026 DeSoto St.

Mo., Webster Groves, St. Louis—A. & H. Luechtfield, 312 Spring St., erect \$10,000 dwelling and garage, 421 Summit Ave.; frame, 2 stories and basement, 24x30 ft. and 18x18 ft., tile bath, hardwood floors, comp. shingle roof, probably hot air heat; work by sub-contract.

N. C., Durham—Mrs. T. B. Roberts erect brick duplex; 2 stories and basement; Rose & Rose, Archts., Trust Bldg.; T. W. Woods, Contr.

N. C., Lexington—J. D. Brown, Salisbury, has contract for 19-room dwelling, Hillcrest;

Northup & O'Brien, Archts., Starbuck Bldg., Winston-Salem.

Tex., Houston—Mrs. Katharine B. Mott, 2325 Inwood Drive, framing first story of \$33,000 dwelling, 1419 Kirby Drive; brick veneer, 2 stories and basement, about 45x90 ft., hardwood floors, slate roof; Burns & James, Archts., Architects Bldg., Indianapolis, Ind.; owner builds. Address Owner. 9-25

Tex., San Antonio—A. Carter, care Kelwood Co., Archts., Travis Bldg., erect residence; Matthews & Kenan, Engrs., Smith-Young Tower; rock veneer and frame, 1 story, tile roof; work by sub-contract. Contract noted 9-11.

Tex., San Antonio—C. W. Hotchkiss, 111, E. Ridgewood St., let contract at \$16,100 to W. H. Carrington, 2747 E. Houston St., for duplex; brick veneer, 2 stories, 10 rooms; Richard Vander Straten, Archt., Travis Bldg.; W. E. Simpson & Co., Engrs., Milam Bldg. 9-18

Va., Warrenton—E. A. Pierce, care Walcott & Work, Archts., 75 E. Wacker Drive, Chicago, Ill., let contract to R. W. Bolling, 1 DuPont Circle, Washington, D. C., for foundation of residence. 6-19

W. Va., Parkersburg—Mrs. O. L. McCormick, 1412 Lynn St., started work on brick residence, 17th St. and Plum St.; tile bath, 6 rooms; R. P. White, Contr., 1706 Oak St.

Government and State

D. C., Washington—Philip Carey Co., 1400 Moreland Ave., Baltimore, Md., has contract at \$9797 for built-up asphalt roof on District Bldg. for Dist. Commissioners.

N. C., Fort Bragg—Constructing Quartermaster, Capt. Lawrence L. Simpson, let contract at \$54,913 to Noll Construction Co., Builders Bldg., Charlotte, for roads, walks, etc., Fort Bragg; also let contract at \$4616 to Burlington Construction Co., Burlington, N. C., for sewer lines with connecting mains. 9-18 and 9-4

Okla., Tulsa—W. H. Hand & Co., 2312 E. Fifth Ave., Tulsa, have sub-contract to raze bldgs. on site for \$1,000,000 Federal bldg.; Chas. Weltz Sons, Contrs., Des Moines, Iowa. 10-2

Tex., Randolph Field—Constructing Quartermaster, Capt. A. W. Parker, let contract at \$71,641 to C. A. Anderson Co., 1026 Avant St., San Antonio, for storm sewer system, Randolph Field. 10-2

Hospitals, Sanitariums, Etc.

Ala., Gadsden—Additional sub-contracts let on \$750,000 Holy Name of Jesus Hospital; Misc. and orn. iron, Birmingham Ornamental Iron Co., 417 W. Pinson St.; lath and plaster work, R. A. McLeod Plastering Co., 1616 First Ave., N.; roofing and sheet metal, Hahn Roofing & Heating Co., 1905 Second Ave., S.; cut stone, Reed Brothers Stone Co., 3000 Eighth Ave., N.; struct., steel erection, Buchanan Construction Co., 307 Third Ave., N. W., all Birmingham, Ala.; painting, William Wilson Co., Bona Allen Bldg., Atlanta, Ga.; hollow metal doors, Art Metal Construction Co., Jamestown, N. Y.; elevator enclosures, W. S. Tyler Co., Superior Ave. and E. 36th St., Cleveland, O.; architectural terra cotta, Northwestern Terra Cotta Co., 2525 Clyburn Ave., Chicago, Ill.; masonry work, Bush Building Co., Eighth Ave., N., Nashville, Tenn.; rein. steel, Gulf States Steel Co., Gadsden; Schmidt, Garden & Erikson, Archts., 104 S. Michigan Ave., Chicago; J. P. Burke, Constr. Engr., P. O. Box 78, Gadsden; Foster & Creighton Co., Contr., 1004 Protective Life Bldg., Birmingham. Contract noted 8-14.

Okla., Clinton—Dr. McLain Rogers having conc. poured for \$75,000 gen. hospital; fire resisting, brick, conc. floor slabs, 3 stories and part basement, 40x130 ft., Johns-Manville roof; Edw. J. Peters, Archt., Shawnee; Brown & Myers, Engrs., Petroleum Bldg., Oklahoma City. See Want Section—Building Material and Equipment. Contract noted Oct. 2.

Hotels and Apartments

D. C., Washington—Lee Properties, Inc., erect 7-story, 61x146 ft., brick, 84-apartment building, 1417 N. St.; Frank Tomlinson, Archt., 1518 K St., N. W.; owner builds.

Fla., Miami Beach—Sylvia Apartments, Inc., care A. DeH. Zink, Archt., Seybold Bldg., Miami, has permit for \$22,000, 3-story, conc. block and stucco apartment, 225 W. 27th St.; comp. roof, wood and tile floors; owner builds.

Ga., Atlanta—C. R. Justi has contract for contract for additions to dining room at Peacock Alley, Inc., Peachtree and Spring Sts.;

one story, 16x53 ft., frame, slate and comp. roof, wood floors; Burge & Stevens, Archts., both Marietta Bldg.

Md., Baltimore—Thomas Mullan, 3945 Greenmount Ave., plans \$1,000,000, 3-story, 200x290 ft., brick 110-apartment, 29th and Canterbury Road; owner, Archt.-Bldr.

Mo., St. Louis—P. M. Will, 6266 Marquette St., started work on \$12,000, 2-story and basement, 29x39 ft., brick apartment, 3973-75 Mermec St.; comp. shingle roof, hardwood floors, hot air heat; owner builds by sub-contract.

Mo., St. Louis—I. H. Brockett has permit for \$10,000, 2-story, 24x47 ft. brick tenement, 5508 Rosa St.; J. B. Brockett, Archt.-Bldr., both 712 Sherwood Drive, Webster Grove.

N. C., Raleigh—Mrs. W. A. Withers, 538 N. Person St., erect 4-apartment building; S. R. Lee, Jr., Contr., 324 S. Salisbury St.

Okla., Chickasha—General Hotels Corp. of America, Clarence H. Sikes, Pres., started work on \$450,000, 10-story, brick, steel, stone and rein. conc. hotel, Fifth St. and Kansas Ave.; E. H. Eads & Co., Archts.; Mr. Sikes has general contract; Aldridge Hotels Co., Wewoka, Lessee. 9-4

Tex., Fort Worth—Allen White erect \$11,680, 2-story, 36x37 ft., brick apartment, 5th and Terrell Sts.; oak floors, tile baths, comp. roof; Fred Murphree, Archt., Kansas Club Bldg.; J. Kaufman, Contr., 321 Tremont St.

Tex., Houston—M. C. Parker & Co., 7627½ Harrisburg St., started work on \$10,000, 2-story, brick veneer apartment, 501 N. Super St.

Miscellaneous

Md., Baltimore—Baltimore Country Club, Howard E. Boyce, Pres., Maryland Trust Bldg., plans rebuilding structure noted damaged by fire at \$150,000 loss.

Mo., O'Fallon—St. Mary's Institute, Sisters of the Precious Blood, Sister Wilhelmina, Superior, erect two additions to convent; one 3 stories, 158x57 ft., other one story, 14x33 ft., both rein. conc. and brick, fireproof; O'Meara & Hills, Archts., Arcade Bldg., St. Louis; Hutter Construction Co., Contr., Fon du Lac, Wis. 8-21

N. C., Winston-Salem—Methodist Nursery for Colored erect \$13,000, 2-story and basement building at Bethlehem House, Hickory St.; Clyde C. Culler, Contr., Stockton Bldg.

Okla., Tulsa—Verdigris Gun Club, A. E. Bradshaw, Pres., 1318 E. 25th St., started work on \$25,000, 2-story and basement, 40x80 ft. clubhouse; J. R. Forner Construction Co., Contr., Ritz Bldg.; Smith & Senter, Archts., Philtower Bldg. 8-14

Tenn., Memphis—Zeta Tau Alpha, Miss Margarite Williams, Pres., 1812 Madison St., started work on chapter house; stucco and stone; Regan & Weller, Archts., Dermon Bldg.; A. T. Horton, Contr.

Tex., Brownsville—James-Dickinson Co., Lee B. James, El Jardin Hotel, let contract to Meriweather & Sauer, Harlingen, for \$50,000, 2-story, brick and tile clubhouse on 10,000-acre Barreda tract which is being developed by this company; English Tudor Gothic type; accommodate 100 people; R. Newell Waters, Archt., Weslaco. 9-18

Tex., Houston—Following sub-contracts awarded in connection with \$300,000 improvements under way to first floor and basement of Bender Hotel, Main and Walker Sts., for Forum Cafeterias of America, Inc., G. B. Franklin, Supvg. Archt., 1222 Grand Ave., Kansas City, Mo., for which Bace Construction Co., Post-Dispatch Bldg., has general contract: Kitchen equipment, \$100,000, Texas Hotel Supply Co., 1316 Clay St.; refrigeration equipment, \$71,000, York Ice Machinery Co., 2201 Texas St.; ventilation installations, R. E. Pierce Mechanical Heating & Ventilating Co., 2504 W. Lamar St.; Vitrolite on interior walls, Jobbers Supply Co., 2212 Washington St.; decorative mirrors, Binswanger & Co., 1007 Main St.; electrical, Jacobs Bros. Electric Co., 1014 Prairie St., all Houston. 8-14

Schools

Ark., Carthage—Carthage Special School Dist. erect \$10,000, 1-story, 7-room and auditorium school; Joe Pierce, Contr., Meridian.

Ark., Harrell—School Bd. let contract to C. D. Gregory, Arkadelphia, for 5-classroom and auditorium, brick school.

Ga., Americus—Anthony School Dist. Bd. of Education let contract to E. W. Rawlings, Colquitt, for \$15,000, 1-story, brick and frame school. 9-18

Ga., Blue Ridge—Bd. of Education, Ed. Johnson, Treas., let contract at \$18,800 to Daniel Lumber Co., LaGrange, to complete school; one story and basement, 184x152 ft., 14 classrooms and auditorium, brick, struc. steel, cast stone trim; Lockwood & Poundstone, Archts., Marietta Bldg., Atlanta.

Ga., Camilla—Bd. of Education, J. D. Whiting, Sec., let contract at \$59,642 to Scarborough & Miller, Leesburg, Fla., for 1-story and basement, 292x165 ft., brick, stone trim school; 24 classrooms and auditorium, comp. roof; also plans colored school; brick veneer, comp. roof; Lloyd Greer, Archt., Valdosta. 9-25

Ga., Waleska—Reinhardt College, Prof. W. Britton, erect \$15,000, 1-story and base- roof, cement floors; E. C. Seiz, Archt., 165 ment, 62x100 ft. brick gymnasium; comp. Spring St., N. W., Atlanta; owner builds.

N. C., Raleigh—Following sub-contracts awarded on six buildings at State School for Negro Blind and Deaf Institute for which J. P. Rogers, Smithfield, has general contract at \$158,000, foundations completed and work started on walls: Millwork, A. T. Griffin, George St., Goldsboro; roofing, J. B. Balls, Wilson; plumbing, S. W. Sugg, Smithfield; plastering, James A. Smith & Son, Lloyd Bldg., Durham; misc. steel and iron, W. H. Bond Co., 318 S. Harrington St.; finish hardware, Brockwell's Shop, 212 S. Salisbury St.; brick, Cherokee Brick Co., Commercial Bank Bldg., all Raleigh; steel joist, lath, Southern G. F. Co., 263 Decatur St., Atlanta, Ga.; gypsum products, U. S. Gypsum Co., 300 W. Adams St., Chicago; steel, Carolina Steel & Iron Co., S. Elm St. ext., Greensboro; Geo. R. Berryman, Archt., 102 W. Hargett St., Raleigh. 8-21

Okla., Crescent—Bd. of Education, Roy Holliday, Clk., let contract at \$18,300 to Secor Construction Co., Oklahoma City, for brick, stone and rein. conc. school; comp. roof, wood floors. 8-21

Okla., Cyril—School Bd. let contract at \$9750 to Allen F. Wass for brick and frame school; E. H. Eads & Co., Archts., Chickasha.

Tex., Kingsville—San Fernando Common School Dist. No. 5, care Gus L. Kowalski, let contract at \$13,613 to Cage Construction Co., Corpus Christi, for 1-story, brick and rein. conc., 3-room school; John M. Marriott, Archt., Frost Natl. Bank Bldg., San Antonio. 8-28

Tex., Marquez—Marquez Ind. School Dist. Trustees let contract at \$13,055 to L. E. Shelton, 1031 W. French St., for 54x60 ft., brick, 4-classroom and auditorium school; Wilder & Smith, Archts., Texas Theatre Bldg., both San Antonio. 8-28

Tex., San Marcos—Southwest Texas State Teachers' College, A. R. Mayhew, Pres., Bd. of Regents, let contract at \$11,825 to Richard Schmidt, 59 East Ave., Austin, for brick, tile, stone and rein. conc. manual arts building, cafeteria addition and remodeling; W. E. Ketchum, Archt., Pope Bldg., Austin. 9-18

Stores

Ark., Monticello—W. H. McQuiston started work on 1-story, 50x100 ft., brick and conc. 2-story building, E. Gaines Ave.; plans and construction by owner.

Fla., Miami—Frankel Construction Co., Inc., 402 W. 27th St., New York, has contract to remodel store, 130 E. Flagler St., for Mangels Womens Apparel, 1115 Broadway, New York; work includes plumbing, ventilating, electrical work, flooring, copper store fronts, plastering, painting, millwork.

Fla., St. Petersburg—E. B. Ring, Inc., 105 Snell Arcade Bldg., has contract for alterations to Snell Arcade Bldg., Central and 4th Sts.

Ga., Atlanta—H. M. Myers, 432 Pryor St., S. W., Atlanta, has contract for store, 180 Edgewood Ave., N. E., to be occupied by Jack's Department Store, 164 Edgewood Ave., N. E.; one story and basement, brick, tar and gravel roof; excavation started.

Ga., Rome—Wylie & Porter let contract to J. F. DuPree & Sons for 2-story and basement, brick store; stone trim, comp. roof.

Md., Baltimore—E. G. W. Realty Co., care E. Eyring & Sons Co., Contr., 808 S. Conkling St., started work on 66x60 ft., brick and hollow tile, 3-story building, 3401-05 Belair Road.

Mo., St. Louis—Herman Mayer Co., Fullerton Building, excavating for 3-story and basement, 50x130 ft., brick store and apartment, 5001-5 S. Grand Ave.; 3 stores and 16 apartments, comp. roof, tile baths, steam heat; Sam Goldman, Archt., 4249 S. Kingshighway Blvd.; owner builds by sub-contract.

Okla., Oklahoma City—Judge J. R. Keaton, Commerce Exch. Bldg., started work on 1-story, 50x140 ft., brick theatre; B. C. Kenyon, Contr., 1840 W. Ninth St.

S. C., Charleston—S. H. Kress & Co., 114 Fifth Ave., New York, let contract to G. A. Miller & Co., 312½ Twiggs St., Tampa, Fla., for 3-story and basement, 150x49 and 72x42 ft., rein. conc., struc. steel, brick, terra cotta store on Wentworth St., at King St.; comp. roof, terrazzo and tile floors, comp. roof; Edw. F. Siebert, Archt., 114 Fifth Ave., New York. 9-18

Tenn., Chattanooga—Jack Bryan, 500 Pine St., erect \$10,000, 1-story, 100x50 ft., brick store, McCallie and Hickory Sts.; built-up roof, wood floors; owner builds by sub-contract; J. W. Wynick, Supt. of Construction.

Tenn., Memphis—E. L. Bruce Co., 1566 N. Thomas St., has permit for \$10,000 rein. conc. building; S. & W. Construction Co., Contr., Shrine Bldg.

Theatres

Tex., Pampa—John T. Glover, Contr., started work on \$125,000 theatre to be operated by Griffith Brothers; seat 1150 people Gates-Morgan Co., Archts., Oklahoma City, Okla. 9-25

Tex., Sherman—Robb & Rowley Theaters, Inc., 2000 Jackson St., Dallas, let contract at \$41,691 to Max Gibbs & Sons Co., for \$100,000 theatre, including equipment; W. Scott Dunne, Melba Bldg., Dallas. 9-19

Warehouses

Ala., Decatur—W. R. Spight erect 1-story, 150x100 ft., brick warehouse; comp. roof; E. P. Childs, Contr.

D. C., Washington—Hub Furniture Co., Seventh and D Sts., N. W., let contract to Christian F. Richter, 38 S. Liberty St., Baltimore, for rebuilding warehouse previously damaged by fire at loss \$80,000; 3 stories, 87x255 ft., brick and conc.; Walter Marcus Hallett, Archt.

Okla., Tulsa—Dreyfus Realty Co., Henry Dreyfus, Pres., 239 W. 11th St., soon start work on \$25,000, 2-story and basement, 50x140 ft., brick warehouse and office building; Cross & Duggan, Archts., 114½ E. Second St.; J. R. Forner Construction Co., Contr., Ritz Bldg.

Tenn., Memphis—Donlon Heating Co., 1221 Court Ave., has contract for heating, Slater Electric Co., 134 S. Second St., electric wiring, and Pritchard Bros., 433 Madison Ave., plumbing for \$140,000, 2-story and basement, 280x193 ft., rein. conc., brick and steel warehouse, Georgia St. and Pennsylvania Ave., for Patterson Transfer Co., Robt. E. Galloway, Pres., 124 N. Second St.; W. F. Schulz, Archt.-Consit. Engr., Shrine Bldg. 10-2

Tenn., Memphis—Consolidated Construction Co. has permit for \$80,000 rein. conc. storage warehouse for Galloway Coal Co., 15 W. Georgia St.

Va., Altavista—The Lane Co., Inc. let contract to Fiske-Carter Construction Co., 121½ W. Main St., Spartanburg, S. C., for \$65,000, 3-story, 100 x 120 ft. warehouse to replace structure recently destroyed by fire; mill construction; Lockwood Greene Engineers, Inc., Engrs., Spartanburg.

Gas Plant for Virginia Town

Franklin, Va.—A franchise has been granted by the Town of Franklin to the Franklin Gas Utilities, Inc., J. A. Pretlow, president, for the manufacture and sale of heating gas, the system to be ready by June, 1932. It is planned to use a Philfuel (butane gas) process plant and contracts are expected to be awarded by October 15 for 1350 feet of 6-inch cast iron pipe, 4900 feet of 4-inch cast iron pipe, 16,230 feet of 3-inch wrought iron pipe, 22,000 feet of ¾-inch house service pipe, 50 drips, 500 pressure regulators, 500 gas meters, miscellaneous equipment and 4,700 square yards of paving. Bids should be submitted to J. Ponsaing, care of Arthur R. Vail, 49 Wall street, New York. G. Hubbard Massey, Norfolk, Va., is the consulting engineer.

WANT SECTION

THE CLASSIFICATIONS IN THIS SECTION ARE:

Machinery and Supplies

Under this heading are reported requests for data, prices and literature and information on machinery, supplies and miscellaneous materials of a wide variety.

Items in this department are published without charge and these columns are open for the publication of wants of all kinds relating to construction work, machinery, materials and supplies.

Building Materials and Equipment

This division comprises all classes and kinds of materials and equipment used in building and construction projects of every kind.

Bids Asked

Includes bids asked by U. S. Government, States, districts, municipalities, firms and individuals for machinery, materials, supplies and construction work.

Machinery and Supplies

Cars (Dump).—Lewter F. Hobbs (Mchy. Dealer), McKevitt Bldg., Norfolk, Va.—Wants prices and data on 3 standard gauge, 8-yd. dump cars, used, first-class condition.

Generator.—Battery Machinery Co., Rome, Ga.—Wants prices and data on 17½ to 25-kw. generator, direct connected to steam engine, used, first-class condition.

Concrete Mixer.—Thompson Construction Co., Inc., P. O. Box 66, Rosemary, N. C.—Wants concrete mixer.

Dragline Equipment.—George W. Tidd, County Engr., Hendersonville, N. C.—Wants rental prices and data on dragline equipment for moving approx. 120,000 cu. yd. earth.

L. A. YBanez & Co., (Contractors' Equipment, etc.), 312-313 Congress Bldg., Miami Fla.—Wants prices and data on 6000 ft. 6 in., Class B. cast iron pipe, delivery West Palm Beach.

Gas Plant Equipment.—Arthur R. Vail, 49 Wall St., New York, and J. Ponsaing, New York, interested in erection of gas plant Franklin, Va., and wants data and prices on following:

- (1) Drips—50
- (2) Gas Meters
- (3) Pressure Regulators
- (4) Miscellaneous gas system distributing equipment.

Oliver Carter, 136 S. Water St., Wilmington, N. C.—Wants prices and data on following:

- (1) Lathe—14 or 16-in. swing x 8-ft. bed, hollow spindle and furnished with counter shaft, chuck, face plate and change gears
- (2) Skidder—Tom Houston, for use with Fordson tractor.

Miscellaneous

Bowling Alleys.—J. H. Axley, Murphy, N. C.—Wants prices and data on bowling alleys, preferably used.

Pipe (Cast Iron) etc.—Arthur R. Vail, 49 Wall St., New York, and J. Ponsaing, New York, interested in erection of gas plant at Franklin, Va., and wants 1350 ft. of 6-in., 4900 ft. of 4-in., cast iron pipe; 16,230 ft. of 3-in., 32,670 ft. of 2-in. wrought iron pipe; 32,000 ft. of ¾-in. pipe for house service line.

Town, Bd. of Trustees, Louis R. Miller, Arcadia, Mo.—Wants prices and catalogs on following:

- (1) Hydrants (Fire)
- (2) Pipe and Fittings—4 and 6 in., for water works system
- (3) Pipe and Fittings—2, 2½, 3 and 4 in. galv.
- (4) Pump (Centrifugal)—50 g. p. m., for 6-in. deep well
- (5) Tank and Tower—elevated, 25,000 gal. capacity, 40 ft. to bottom of tank.

Building Material and Equipment

Chester Cowen, Contr., 416 Minnesota St., Chickasha, Okla., wants prices on following for \$75,000 hospital, Clinton, Okla.:

Dumb Walters Elevators.

Constructing Quartermaster, Randolph Field, Tex., wants prices on following for two \$30,000 social center bldgs.:

- Cast Stone
- Electric Refrigerators
- Flooring—hardwood, linoleum
- Roofing—tile
- Steel Sash and Trim
- Tile—hollow.

Booker Washington Assn., Wm. R. Cowart, Pres., 16 N. Lawrence St., Montgomery, Ala., wants prices on following for \$19,000 orphanage:

- Electric Refrigerators
- Flooring—linoleum, composition
- Inclinator
- Limestone
- Metal Ceilings
- Metal Doors
- Plaster Board
- Sprinklers
- Tile—hollow
- Ventilators.

Hugh E. White, Archt., 207 W. Fourth Ave., Gastonia, N. C., wants prices on following for \$20,000 library:

- Flooring—hardwood, tile, composition
- Limestone
- Roofing—(flat)—built-up
- Wire Glass
- Skylight.

Will N. Noonan Co., Archt., Bldrs. Exch. Bldg., San Antonio, Tex., wants prices on following for church, Palestine, Tex.:

- Plaster Board
- Roofing—built-up.

E. C. Seiz, Archt., 165 Spring St., Atlanta, Ga., wants prices on following for \$15,000 gymnasium at Reinhardt College, Waleska:

- Flooring—hardwood
- Roofing—asphalt shingle.

Gosnell & Bradbury, Archts., Volunteer Bldg., Chattanooga, Tenn., want prices on following for \$27,000 school, Lookout Mountain:

- Flooring—hardwood
- Plaster Board
- Roofing (hip)—asphalt shingle, slate
- Steel Sash and Trim.

W. A. Rayfield & Co., Archts., Drawer 649, Birmingham, Ala., want prices on following for \$25,000 church, Cleveland, Okla.:

- Rolling Partitions
- Roofing—asphalt shingle
- Tile—hollow.

W. A. Rayfield & Co., Archts., Drawer 649, Birmingham, Ala., want prices on following for \$30,000 church, Mobile, Ala.:

- Flooring—tile, composition
- Plaster Board
- Rolling Partitions
- Roofing—asphalt shingle.

W. D. Gladney, Contr., 3526 West Place, St. Louis, Mo., wants prices on following for \$15,000 lodge hall, Elsberry, Mo.:

- Meta Ceilings
- Roofing (flat)—built-up
- Terra Cotta Trim.

St. John Construction Co., Inc. (Gen. Contr.), 629 N. W. Seventh St., Miami, Fla., bidding on power plant and refinery of Swift & Co., at Havana, Cuba, and wants bids at once on following: Struc. steel, f. o. b. Havana; roofing and sheet metal work installed: lathing, plaster, stucco work; mill and cabinet work, f. o. b. Havana; plumbing work; quarry tile floors; painting and decorating; finish hardware, f. o. b. Havana; terra cotta building tile, f. o. b. Havana (load bearing); hard burned common brick, f. o. b. Havana.

Bids Asked

Ambulance.—District Commrs., Washington, D. C.—Bids Oct. 20 for automobile ambulance for fire department.

Bridge.—Henderson, Ky. See Construction News—Bridges, Culverts and Viaducts.

Bridge.—Maryland. See Construction News—Bridges, Culverts and Viaducts.

Bridge.—Inverness, Fla. See Construction News—Bridges, Culverts and Viaducts.

Bridge.—Kentucky. See Construction News—Roads, Streets, Paving.

Bicycle Tires.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Oct. 17 for 100 bicycle tires, delivery Philadelphia, Pa.

Burlap (Jute).—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Oct. 20 for 150,000 lb. ft. jute burlap, delivery Philadelphia, Pa.

Chests.—Ch. of Engrs., Washington, D. C.—Bids Oct. 23 for 100 carpenters' chests, 155 demolition chests and 65 tinsmith equipment boxes.

Dikes and Revetment.—U. S. Engr. Office, Postal Telegraph Bldg., Kansas City, Mo.—Bids Nov. 3 for about 10,650 lin. ft. standard pile clump dikes and about 9040 lin. ft. standard revetment, Missouri River. See Construction News—Miscellaneous Construction.

Dredging.—U. S. Engr. Office, Florida Theatre Bldg., Jacksonville, Fla.—Bids Nov. 1 for dredging 3,406,000 cu. yd. See Construction News—Drainage, Dredging and Irrigation.

Dragline.—Road and Bridge Committee of East Baton Rouge Police Jury, Baton Rouge, La.—Bids Oct. 21 for Diesel powered, 1-yd., 40-ft. boom, 30-in. crawler tread, dragline complete without bucket.

Ells and Pipe Couplings.—U. S. Engr. Office, Huntington, W. Va.—Bids Oct. 16 for ell and pipe couplings.

Fire Fighting Equipment.—District Commrs., Washington, D. C.—Bids Oct. 24 for 750-gal. pumping engine, 85-ft. aerial ladder truck, and combination hose wagon.

Elevator Repairs.—Treasury Dept., Office of Supvg. Archt., Washington, D. C.—Bids Oct. 24 for miscellaneous repairs to elevators in buildings at 1358 B St., S. W., 220 14th St., S. W., and 221 Linworth Pl., S. W.

Filtration Plant.—City of Brownsville, Tex. H. Van Horn, City Sec.—Bids Oct. 31 for furnishing material, equipment and labor for constructing at site of present water filtration plant a new and complete water filtration plant of 4 m. g. d. capacity; plans, etc., with City Sec.

Heating Plant.—Constructing Quartermaster, Army Medical Center, Washington, D. C.—Bids Oct. 28 for additional boiler installation in heating plant.

Lighting Fixtures.—Supvg. Archt., Treasury Dept., Washington, D. C.—Bids Oct. 23 for interior lighting fixtures in Dept. of Commerce bldg., Washington.

Lubricators and Wire Nails.—U. S. Engr. Office, Huntington, W. Va.—Bids Oct. 15 for lubricators and common wire nails.

Miscellaneous Machinery.—Bureau of Supplies and Accounts, Navy Dept., Washington, D. C.—Bids Oct. 21 for hand operated brake bending machines and for motor driven universal metal cutting band saw.

Miscellaneous Machinery.—Bureau of Supplies and Accounts, Navy Dept., Washington, D. C.—Bids Oct. 21 for portable electric saw, motor driven engine lathe and electric wood-working moulder machine.

Miscellaneous.—Panama Canal, Office of Gen. Pur. Officer, Washington, D. C.—Bids Oct. 14 for following, Sch. 2596:

Bar copper, phosphor bronze spring wire, blacksmith anvils, galv. boat nails, chopping axes, pipe dies, steel drills, expansion bits, augers, pipe cutters, etc.

Paving.—Arthur R. Vail, 49 Wall St., New York, and J. Ponsaing, New York, interested in establishment gas plant at Franklin, Va., and wants prices on replacing various types of pavement, estimated 4700 sq. yds.

Pipe (Wrought Iron).—See Pipe (Cast Iron).

Radio Supplies.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Oct. 13 for 86 radio tubes, 100 "B" batteries, 400 dry batteries, 48 knife switches, for use at Managua, Nicaragua.

Roads.—State of Maryland—Bids for 3 roads. See Construction News—Roads, Streets, Paving.

Roads.—State of Kentucky—Bids for 3 roads. See Construction News—Roads, Streets, Paving.

Roads.—State of Louisiana—Bids for 19 roads and bridge project. See Construction News—Roads, Streets, Paving.

Road.—Virginia. See Construction News—Roads, Streets, Paving.

Saw and Drills.—Bureau of Supplies and Accounts, Navy Dept., Washington, D. C.—Bids Oct. 21 for motor driven self-contained jig saw; bids Oct. 23 for electric drills.

Sewer Construction.—City of Huntington, W. Va., H. H. Fielder, Clk.—Bids Oct. 13 for sanitary sewer in alley between Piedmont Rd. and Bradley Rd. from end of present sewer to Forty-Ninth St. W.

Sewer Construction.—City of Salisbury, Md., E. J. C. Parsons, Clk.—Bids Oct. 13 for construction of sanitary sewers and appurtenances, Pennsylvania Ave., Logan St., Prospect Ave., and Camden Ave., Contr.

144-S; work includes 650 ft. 20-in., 1760 ft. of 15-in., 1000 ft. of 10-in., 330 ft. of 8-in., 600 ft. of 6-in. sanitary sewers; 11 manholes; Francis H. Dryden, City Engr.

Stockings (Athletic).—Marine Corps, O. M. Dept., Washington, D. C.—Bids Oct. 15 for 1200 pairs athletic stockings, delivery Philadelphia, Pa.

Street.—Houston, Tex. See Construction News—Roads, Streets, Paving.

Streets.—St. Louis, Mo. See Construction News—Roads, Streets, Paving.

Telephone Switchboard, etc.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Oct. 13 for telephone switchboard, etc., delivery Parris Island (Port Royal), S. C.

Turbo-Generator.—U. S. Engr. Office, Huntington, W. Va.—Bids Oct. 17 for turbo-generator, for U. S. Dredge Cincinnati.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers, whether they are advertisers, or subscribers, or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Changes Cincinnati Office

The Fuller Lehigh Company, Fullerton, Pa., manufacturers of a complete line of pulverized coal equipment, announce removal of their Cincinnati office from the Traction Building to the Carew Tower. H. E. Martin will continue in charge as manager.

Assistant Division Engineer

The Chesapeake & Ohio Railway Company, Richmond, Va., J. B. Harris Superintendent, announces appointment of G. B. Wall, Jr., as assistant division engineer, with headquarters at Ashland Ky., vice A. W. White, promoted. R. W. Mumford is engineer of the Ashland division.

Michaels Art Bronze Representative

The Michaels Art Bronze Co., Covington, Ky., designers and manufacturers of ornamental bronze and iron for public buildings, have formed a connection with G. A. Doeright, Jr., Youngstown, Ohio, who will represent the company in Mahoning, Trumbull and Columbiana counties, Ohio, and in Lawrence and Mercer counties, Pennsylvania.

For Paint and Varnish Work

A new product, DuLux is announced by E. I. du Pont de Nemours & Company, Wilmington, Del. The product is the result of several years' research work by du Pont chemical and technical staffs to impart outstanding advantages of Duco to finishes of the paint and varnish types. It is now available for industrial uses and is recommended by the manufacturer for finishing machinery, coating structural steel, bridges and freight cars and for other uses where resistance to weathering and corrosion is required.

Legaré Engineering Company

The Legaré Engineering Company, a new organization, announces that it is prepared to furnish complete engineering service in municipal, highway and industrial engineering, also a system of advisory service for towns and counties in connection with operation of public works. Officers include T. Keith Legaré, president; J. E. Gibson, manager and engineer of the water department, Charleston, S. C., vice-president; Thomas F. Ball, head of the Department of Electrical Engineering, University of South Carolina, secretary-treasurer; Elroy G. Smith, Augusta, Ga., and G. E. Shand, Columbia, consulting engineers. General offices are at suite 206, 1226 Sumter street, Columbia, S. C.

Mileage of White Trucks and Buses

From mileage figures supplied by owners, the White Company, Cleveland, Ohio, manufacturers of motor trucks and buses, have annually compiled a list of their trucks and buses which have exceeded the 100,000-mile mark. Figures this year indicate that 21,872 Whites, in running from 100,000 to 500,000 miles and more each, have totaled 3 billion miles and the number of trucks and buses this year show a gain of 4,007 over last year.

Southern Railway Promotions

Announcement is made of promotion of Brooks G. Brown, new freight traffic manager of the Southern Railway System at Atlanta, to the newly-created position of general freight traffic manager with offices in Washington. George H. Wilcox, assistant freight traffic manager at Atlanta has been appointed freight traffic manager to succeed Mr. Brown.

Sells 2,539,281,000 Cubic Feet Gas

The West Virginia Gas Corporation, a recently acquired subsidiary of the Appalachian Gas Corporation, New York, sold 2,539,281,000 cubic feet of natural gas during the first 7 months of this year, according to a statement of the parent company. On its leases in southern West Virginia of approximately 52,209 acres the company has approximately 127 wells.

Dealer for Eastern Territory

C. D. Buoy, sales manager of the Universal Power Shovel Company, a division of the Unit Corporation of America, Milwaukee, Wis., announces appointment of the Tractor and Equipment Company, Newark, N. J., as dealer for its products in that territory.

Represents Michaels Art Bronze

The Michaels Art Bronze Co., Covington, Ky., announce the appointment of Harry A. Whartenby, Philadelphia, as new representative in that city. The company designs and manufactures ornamental bronze and iron for banks and public buildings.

Moves Offices to Chattanooga

The W. E. Biggs Engineering Company, Knoxville, Tenn., has moved its office to the Volunteer Building, Chattanooga. The change was made because the company feels that Chattanooga is nearer the center of its territory.

Statement of the ownership, management, circulation, etc., required by the Act of Congress of August 24, 1912, of MANUFACTURERS RECORD, published weekly at Baltimore, Md., for October 1, 1930.

State of Maryland,

City of Baltimore,

Before me, a Notary Public, in and for the State and City aforesaid, personally appeared Frank Gould, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the MANUFACTURERS RECORD, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in Section 411, Postal Laws and Regulations, to wit:

1. That the names and addresses of the publisher, editor, managing editor and business managers are: Publisher, Manufacturers Record Publishing Co., Baltimore, Md.; editor, Richard H. Edmonds, Manufacturers Record, Baltimore, Md.; managing editor, none; business manager, Frank Gould, Manufacturers Record, Baltimore, Md.

2. That the owner is Manufacturers Record Publishing Company, Baltimore, Md. Stockholders are: Frank Gould, Manufacturers Record, Baltimore, Md.; C. R. Marchant, Manufacturers Record, Baltimore, Md.; Wm. M. Beury, Manufacturers Record, Baltimore, Md.; J. Robert Gould, Manufacturers Record, Baltimore, Md.

3. That the known bondholders, mortgagees and other security holders owning or holding 1% or more of total amount of bonds, mortgages or other securities are: Baltimore Commercial Bank; Richard H. Edmonds.

4. That the two paragraphs next above, giving the names of the owners, stockholders and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees hold stock and securities in a capacity other than that of a bona-fide owner, and this affiant has no reason to believe that any other person, association or corporation has any interest, direct or indirect, in the said stock, bonds or other securities than as so stated by him.

FRANK GOULD,
President.

Sworn to and subscribed before me this 26th day of September, 1930.

EDWIN T. SICKEL.

(My commission expires May 4, 1931.)

Industrial Motion Pictures

The fourth of a series of motion picture films produced for exhibition before engineers and engineering students of the country has been released by E. I. du Pont de Nemours & Co., Wilmington Del. The new film, "Blasting the Water Highways of America", shows work being done in New York Harbor and on the Great Lakes to keep these waters safe for navigation.

Novel Electric Locomotive

The first of two electric freight and switching locomotives of unusual design was shipped recently from the Erie, Pa., works of the General Electric Company to the Delaware, Lackawanna & Western Railroad. Units are of the trolley, oil-electric, battery type, capable of operating from a 3000-volt trolley, an oil engine or battery. Outside the electric zone, operation will normally be with oil engine and battery jointly.

Trade Literature

De Laval Steam Machinery.—The early work of Dr. De Laval, inventor of the centrifugal milk and cream separator, is described in a pamphlet, "A Pioneer in High Pressure Steam," distributed by the De Laval Steam Turbine Company, Trenton, N. J. The company is also distributing its new 40-page catalog on pumps, turbines, compressors and speed reducers for the oil industry.

Soil Saving Dams.—Engineers of the Atlas Metal Works, Dallas, Tex., working with county agents, representatives of the A. & M. College and other authorities on drainage, have developed a soil-saving dam to meet the needs of farmers. It is all-metal and comes in sections which may be driven easily into the ground, forming an outlet for water and a retainer of soil. Design, construction and application of the dams are described and illustrated in a folder issued by the company.

Virginia—The Beckoning Land.—This is the title of a folder issued by the Virginia Commission on Conservation and Development, Richmond. With a foreword by Governor John Garland Pollard, the contents of the booklet include: A Bird's Eye View of Virginia, Washington to Bristol, From the Capital of the Nation to its Cradle, Round about the Southside and A Pen Picture of the Piedmont. The booklet is generously illustrated and a pocket on the cover contains a state tourist map.

Solving Industrial Problems.—The Sherman Corporation, Boston, Mass., management, industrial and sales engineers, is distributing a folder, "A Record of Industrial Achievement", which presents 12 stories of accomplishments of the company in solving problems of representative industries in the fields of management, manufacturing and merchandising. These achievements are described as typical of many experiences of Sherman engineers in collaborating with industries in improving methods, decreasing operating expenses and increasing sales and profits.

Paving Brick.—Standard specifications for vitrified brick pavements adopted by the American Society for Municipal Improvements, including standard specifications for paving brick of the American Society for Testing Materials, are embodied in a booklet issued by the National Paving Brick Manufacturers Association, Washington, D. C. A number of illustrations show the use of paving brick on various pavements and methods of application. The association has also issued a booklet presenting the proceedings of its 24th annual convention at Chicago, on December 5 and 6, 1929.

Cottonseed Products Directory.—The sixteenth annual edition of the International Cottonseed Products Directory for 1930-31 has been published by the Cotton and Cotton Oil News, Dallas, Tex. It lists cottonseed and other vegetable oil mills, refineries, linseed oil mills, cottonseed products brokers, lint buyers, oleo factories, fertilizer factories, lint and felt buyers, brokers and manufacturers, chemists, cotton compresses, lard compound refiners, etc., and many wholesale grain feed dealers in the United States. The price is \$5.00.

Unit Heaters and Radiation.—The Wolverine Tube Co., Detroit, Mich., manufacturers of seamless copper, brass and aluminum tubing, have issued a catalog illustrating and describing Wolverine unit heaters and Wolverine copper radiation. Architects and heating and ventilating engineers are said to find these units efficient and economical, especially for industrial plants.

Diamond Chain Motor Drive.—A 64-page book, No. 78, on stock chain drives, has been issued by the Diamond Chain and Manufacturing Company, Indianapolis, Ind. Diamond stock drives are available from $\frac{1}{4}$ to 75 horsepower, in ratios up to 8.4 to 1, in motor speeds up to 1800 rpm. The catalog presents complete tables and instructions, with illustrations showing many applications and advantages of this high speed drive.

United States Foreign Trade.—Trends in the Foreign Trade of the United States is the title of a 329-page volume issued by the National Industrial Conference Board, Inc., New York. The book is divided into four parts; the first contains chapters on Growing Interest in Foreign Trade; Internal Progress and International Trade; International Financial Interchange and Commodity Trade, and Treatment of Trade Statistics. Part two under the general subject of United States exports presents chapters on various countries, while part three is devoted to the general theme of United States imports, and part four to the United States trade as a whole. The price is \$3.50.

Steel Construction Convention in South

Construction as a constructive factor in business development and steel as a major factor in construction are the basic subjects for consideration at the eighth annual convention of the American Institute of Steel Construction, to be held October 28 to November 1 at Pinehurst, N. C., with headquarters at the Carolina Hotel. Intimate problems of the industry, as the program expresses it, will be discussed by leaders in steel activities, including several from abroad.

Following a welcome by the State, probably by Governor O. Max Gardner, and reports by officers and committees, the discussions will be opened on the afternoon of the first day by an address, "The Structural Steel Industry and Its Future Possibilities," by R. I. Ingalls, president of the Ingalls Iron Works, Birmingham. The South also will present "Economics of Highway Bridge Construction" for discussion, through an address by T. W. Dodd, president of the St. Joseph Structural Steel Company, St. Joseph, Mo., the debate to be led by J. E. Griner, consulting engineer, Baltimore.

Prominent in the long list of other speakers will be James A. Farrell, president, and E. P. Thomas, vice-president,

Air and Gas Compressors.—A new type of compressor construction is embodied in class 14-A and 15-A compressor, power and steam driven, respectively, manufactured by the Pennsylvania Pump & Compressor Company, Easton, Pa. In this type, the low pressure cylinder is double acting and the high pressure cylinder single acting. Bulletin No. 153, which the company has issued on its two-stage tandem types of air compressors, covers the class 14-A and 15-A type, while bulletin No. 151 covers duplex two-stage and duplex single stage compressors.

Factory Lighting Code.—Information on lighting, for factory owners and operators in many lines of industry has been compiled in a "Code for Lighting Factories, Mills and Other Work Places," approved by the American Standard Association, New York and the Illuminating Engineering Society. The code contains sections on measurement of illumination, recommended levels of illumination, avoidance of glare specifications for adequate wiring, locating switches and a suggested minimum regulation to be established by state authorities.

Bores and Strokes.—This is the title of a monthly publication issued by Schramm, Inc., West Chester, Pa., manufacturers of engines, hoists and compressors. The October edition is now being distributed, showing interesting applications of the Schramm machines. The company maintains Southern branches in Birmingham, Ala., and Tulsa, Okla.

United States Steel Corporation; J. G. Shryock, Belmont Iron Works, Philadelphia; George E. J. Pistor, Hay Foundry & Iron Works, New York; H. A. Fitch, Kansas City Structural Steel Company, Kansas City, Kan.; R. B. Thomas, counsel to the Committee on Code of Trade Practice; Otto von Halen, director of the German Steel Syndicate, and E. W. Beatty, president of the Canadian Pacific Railway.

President Charles N. Fitts will preside and will act as toastmaster at the banquet.

An article, "Weather in Pinehurst," showing the delightful climate, is a feature of the October issue of *Aminsteel News*, organ of the Institute, which is devoted largely to convention news.

\$500,000 Unit of Raylaine Plant

Asheville, N. C.—Plans have been completed for the first unit of the plant to be erected on Sweeten Creek highway near Biltmore for Raylaine, Inc., G. Jean Nord, president and general manager, Vanderbilt Hotel, Asheville. Buildings will be of treated timber and steel, the main structure to be 400 by 150 feet. The initial unit is estimated to cost \$500,000. Mr. Nord, inventor of the process for making Raylaine, a fibre having the appearance of wool, is drawing plans.

Annual Asphalt Paving Conference

The keynote of the ninth annual Asphalt Paving Conference, to be held at the Hotel Peabody, Memphis, Tenn., December 1 to 5, will be the salvaging of old macadam and gravel roads and the building of farm-to-market roads as a measure of farm relief, an aid to unemployment, a means of increasing the amount of freight handled by the rail roads and as affording relief for traffic congestion on main highways. The following chairmen of committees have been appointed: Frank L. Raschig, first assistant director, State Department of Highways, Columbus, Ohio, committee on resurfacing; Maj. F. M. Davison, engineer of maintenance, District of Columbia Highway Department, committee on maintenance; B. E. Gray, highway engineer, The Asphalt Institute, New York, committee on widening pavements; W. N. Carey, chief engineer Department of Public Works, St. Paul, Minn., committee on airport surfacing; Charles E. Grubb, engineer-director, County Highway Officials' Division, American Road Builders' Association, Washington, D. C., committee on stage construction. Arrangements at Memphis are in the hands of a committee headed by W. B. Fowler, city engineer.

Uses for Wood Now Wasted

More than 5000 carloads of wood waste each year in sawmills and other woodworking plants in Maryland has been estimated in a survey by the National Committee on Wood Utilization of the Department of Commerce, which places its annual value, if properly utilized, at nearly \$2,000,000. The data covers only waste incident to the manufacture of finished forest products and does not include wood wasted in the forest.

This material, now discarded and unused by mills and similar wood plants, is said by the committee to be suitable for use by pulp mills, fiber board plants and other establishments. The manufacture of small dimension lumber, charcoal, wood distillation products, lath, excelsior and other materials also would consume much of this unused wood.

Similar surveys in Virginia have brought to light 28,600 carloads a year of such unused wood, and in North Carolina 33,000 carloads, which might be used.

On the committee, which is working on a practical plan for utilization of this unused material, are C. C. Cook, Baltimore, of the Baltimore & Ohio Railroad; J. R. Blair, Thomasville Chair Company, Thomasville, N. C.; George D. Cole, Newport News Shipbuilding & Dry

Dock Company; Newell H. Hargrave, Farmers Manufacturing Company, Norfolk, and Walker L. Wellford, Chickasaw Wood Products Company, Memphis.

\$450,000 Hotel Started

Chickasha, Okla.—Work has begun on a \$450,000 hotel here for the General Hotels Corp., Clarence H. Sikes, president, who is handling the general contract. The building will be 10 stories, of brick, stone, steel and reinforced concrete construction. E. H. Eads & Co., Chickasha, are the architects.

Architects for \$750,000 Courthouse

Clarksburg, W. Va.—Harrison County Court has selected Walker & Weeks, Cleveland, Ohio, as architects for the new \$750,000 courthouse to be erected here and it is announced that Edward J. Wood & Son, Clarksburg, will be associate architects. F. R. Walker, one of the architects, will study the courthouse site and the feasibility of moving the present courthouse and jail to the Y. W. C. A. building while the new courthouse is under construction.

Inconsistency of Business Men's Attitude Toward Government in Business

"While practically all business men profess to be opposed to government in business, business men of the United States themselves are principally responsible for constant increases of government in business in this country and for increases in taxes that result," declared Samuel O. Dunn, editor of the *Railway Age*, in an address last week at the conventions of the National Association of Casualty and Surety Underwriters and the National Association of Casualty and Surety Agents, held at White Sulphur Springs, W. Va.

"They want less government in their own business but are strongly in favor of more government in other people's business," said Mr. Dunn. "Why are the governments of almost 20 states providing workmen's compensation insurance? The influence of large lumber manufacturers put Washington and Oregon into the workmen's compensation insurance business. Influence of the Ohio Association of Manufacturers put Ohio into that business. Influence of the coal mine operators put West Virginia into it. Why is the government operating at a loss a barge line on the Mississippi River in competition with the railways? Because the business men of the Middle West want it to.

"While most business men profess to be opposed to socialistic policies in general, can you recall any case in which business men of any class or community opposed any particular socialistic policy which they believed would increase their own profits?

"Activities of the government affecting business are not increasing in spite of the opposition of business men but mainly because of support given them by business men.

"I am not trying to draw an indictment of business men. What I am trying to do is to emphasize that the pre-

vailing tendency to have the government interfere with or actually engage in business is one which business men can arrest, but they can arrest it only by practicing what they preach.

"For many years we had less government interference with business than almost any other nation, and to this is largely due the fact that we have become the most wealthy and prosperous nation in the world. It is remarkable how prone we are to disregard the lessons which should be learned from this experience. The problem of taxes is becoming one of the most serious confronting the American people. Total taxes increased from about \$7,250,000,000 in 1923 to about \$9,200,000,000 in 1928, or almost 27 per cent. In 1913 taxes were \$22.73 per capita, or 6.4 per cent of the national income, while in 1927 they were \$76.50 per capita, or 12.0 per cent of the national income. Increase in farm taxes between 1920 and 1927 was 66 per cent, but little mention has been made of that as a reason why we continue to have a farm problem.

"Every increase of government interference with business results in an increase in taxes to pay those employed to do the interfering. Every subsidy the government gives, whether indirectly to shippers to help them get lower rates from other means of transportation than they could get from the railways, or to farmers in an effort to help them get better prices, reappears in the form of an increase in taxes that all the people must pay.

"As long as so many business men look with favor on government policies affecting other people's business, policies they would not want applied to their own business, we shall continue to have a steady increase of government in business, regardless of how many business men profess to be opposed to it."

Improvement in Glass Making Equipment in Recent Years

A great advance has been made in the glass manufacturing industry in the last ten years, according to Charles R. Tips, who is at the head of large bottle-making plants at Three Rivers, Texas, and in Bastrop, La. Mr. Tips states that during this period more improvements have been made in the industry than for an indefinite period previously. He emphasized that the plant at Three Rivers, with a production of 30,000,000 bottles a year, is now being equipped with tank blocks to permit its continuous operation for a minimum of two years. In the past the plant has had to close down for repairs every nine or ten months.

Recognizing the growing need of the industry for larger output and higher quality through improvement in design of glass furnaces and perfection of new materials in their construction, two large glass works have formed a company for the purpose of manufacturing and marketing an electrocast refractory which had been developed and used for their own purposes for over seven years. The plant was built at Louisville, Ky., and was placed in operation in March, 1928.

The new product is formed by melting highly aluminous raw materials in an electrical furnace and casting the liquid in moulds of finished shape. The electrocast block, it is said, met with success on its introduction to the trade. In two and a half years, use of this material has grown so that today the company is the country's largest manufacturer of glass tank blocks.

Fruit Quarantine Is Modified

Removal of the requirement for sterilization with respect to Florida fruit and peppers to the Southern and Western States is announced by the Department of Agriculture as a further modification, effective October 15, in the Mediterranean fruit fly quarantine regulations. Release of the sterilization requirement permits Florida host fruits and vegetables, leaving the regulated area under permit, to be reshipped throughout the United States. Restrictions as to infested areas, within half a mile of points at which investigation may be discovered, remain unchanged.

Missouri Asks Road Bids

Jefferson City, Mo.—Sealed proposals will be opened October 11 by the State Highway Commission on 21 road and one bridge projects, the former covering a total of approximately 63 miles. Proposed road construction is represented

by 13 projects calling for a total of 36.136 miles of gravel; 3 projects calling for 12.128 miles of graded earth construction; 4 projects calling for 12.101 miles of chat, and one project calling for 2.626 miles of gravel or chat. The proposed bridge, of steel and concrete, will be built at East Prairie in Mississippi County.

\$4,850,000 Arkansas Bonds Offered

Little Rock, Ark.—Proposals for the purchase of \$4,850,000 state bonds will be opened here November 6 by the State Note Board. The securities will consist of \$2,500,000 toll bridge bonds, \$1,850,000 state pension obligations, and \$500,000 state school bonds. Ralph Koonce is state treasurer and secretary of the State Debt Board.

West Virginia Power Project

Romney, W. Va.—The South Branch Power Co., Philadelphia, Pa., has applied to the Federal Power Commission for a preliminary permit granting priority, in order to procure data and make other arrangements looking to an application for a license to build four dams on the South Branch of the Potomac River and two on the Great Cacapon River. The dams on the South Branch of the Potomac would be 80, 80, 50 and 200 feet high and located approximately 1, 23, 42 and 68 miles, respectively, from the mouth of the river, while the Great Cacapon dams would be 155 and 160 feet high, located about 4 and 32 miles, respectively, from the mouth of the river. The 50 per cent time power available at the six sites is estimated to be 25,000 horsepower and the 90 per cent time power 8,500 horsepower. The development would affect lands in Morgan, Hampshire, Grant and Hardy counties.

Twelve-Month Construction Increasing

Familiarity of industry and the public generally with advantages of winter construction has resulted in a substantial increase in such construction, it is pointed out in a paper by James S. Taylor, Chief, Division of Building and Housing, Department of Commerce, read before the Construction Division of the American Society of Engineers in session at St. Louis.

Twelve-month construction of many types has a sound economic basis, according to Mr. Taylor. On large projects requiring more than eight or ten months, it is obviously in the interest of the owner that there be no winter shutdown, and even on shorter jobs there are often advantages in having much of the work carried on during the winter.

"Practically every group connected with construction," Mr. Taylor said, "engineers, architects, contractors, building material manufacturers and dealers, transportation agencies, and building trades labor, all stand to gain through steadier operations throughout the year. The larger organizations and greater investments in plant and equipment now required for building operations tend to increase carrying charges during dull periods and thus make stabilization of greater importance to engineering and contracting organizations. The problem affects so large a section of the community as to be of importance to many other lines of business and the public generally.

"The problem appears to be two-fold. On the one hand, building owners, public works officials and others responsible

for starting construction or for having repairs and maintenance carried on, require education as to what can be accomplished by means of distributing construction more evenly throughout the year.

"Local efforts on the part of building congresses and other groups, sales efforts of individual contractors and other business men, advice of competent engineers, and various national efforts centering in the work of the Committee on Seasonal Operations in the Construction Industries, which was appointed by Mr. Hoover in 1923 and reported in 1924, have all been important factors. The seasonal operation committee concluded that 'custom, not climate, is mainly responsible for seasonal idleness in the construction industries.'"

On the other hand, according to Mr. Taylor, the construction industry has important responsibilities in advancing and applying the technique of twelve-month construction to various types of operations. Cold weather and rainy seasons are the principal obstacles to be overcome, he stated, although lowered efficiency during extremely hot weather frequently is not taken into account in making comparisons between winter and summer costs.

It is the special task of the engineer carrying on construction, which is subject to interruption from weather conditions, to familiarize himself with methods and costs of more or less continuous operations and in regard to probable delays that may be expected in spite of precautionary measures.

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Users' Opinions Count

(A few extracts taken from letters received by us)

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"—it seems that a Leadite Joint will at least develop the full strength of cast iron pipe and is less susceptible to leaky joints, and we would have no hesitancy in using Leadite for the severest conditions."

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"—we have installed approximately 500,000 lineal feet of cast iron Water Mains, varying in size from 6 in. to 30 in. In all this work we have found Leadite to be very satisfactory."

CRUMLEY, JONES & CRUMLEY COMPANY CINCINNATI, OHIO

"We have laid 200 miles of c. i. Water Mains with Leadite. We have used Leadite on c. i. pipe from 4 in. to 36 in. diameter."

CITY OF TULSA WATER DEPARTMENT TULSA, OKLA.

"The City of Tulsa Water Department has standardized upon Leadite for joints in all cast iron construction."

INDIANAPOLIS WATER COMPANY INDIANAPOLIS, IND.

"We have laid 150 miles of cast iron pipe during the past 5½ years in which Leadite has been used as a jointing material—and we have found the tightness of the joints to be satisfactory."

NOTE

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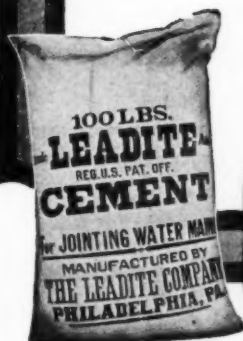
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FINANCIAL NEWS

Bond Issues Proposed

Ala., Anniston—City, W. T. Morton, Jr., Treas., authorized sale of \$15,000 bonds for paving Moore Ave. and for laying sewer.

Ala., Mobile—City probably vote not later than Nov. 15 on \$525,000 bonds, including \$250,000 for sewer extensions, \$200,000 water works system expansion and \$75,000 airport.

Ark., Carlisle—Carlisle Special School Dist., Lonoke County, E. A. Callahan, Pres., Bd. of Directors, opens bids Oct. 16 for \$16,500 bonds.

Ark., Little Rock—State, Ralph Koonce, State Treas., opens bids Nov. 6 for \$4,850,000 bonds, including \$2,500,000 toll bridge, \$1,850,000 state pension obligations and \$500,000 school bonds.

Fla., Avon Park—City votes Oct. 28 on \$97,000, 6% refunding bonds.

Fla., West Palm Beach—School Bd., Frank A. Huston, Chmn., authorized issuing \$150,000, 6% tax anticipation notes.

Ga., Statenville—Statenville Consolidated School Dist., recently voted \$18,000 grammar and high school building bonds.

Ky., Covington—City, Bd. of Commrs., passed ordinance providing for issuing \$430,000 funding bonds.

Ky., Lexington—City, W. C. Wilson, Vice-Mayor, will sell \$5125.20 Elm Tree Lane Street improvement bonds.

Ky., Ludlow—City votes in November on \$30,000 incinerator bonds.

La., DeRidder—Beauregard Parish defeated \$20,000 Sugartown School Dist. bonds.

La., Thibodaux—Lafaurche Parish School Bd., W. S. Lafargue, Sec., opens bids Oct. 20 for \$50,000, not to exceed 6% school bonds of School Dist. No. 9.

Mo., Arcadia—Town, Bd. of Trustees, Louis R. Miller, voted \$8000 water works bonds; date of opening bids for purchase not set.

Mo., Clayton—St. Louis County Court instructed County Clerk to call for bids for \$1,500,000 of \$10,000,000 road bonds.

N. C., Snow Hill—Greene County Commrs. open bids Oct. 15 for \$350,000, 5% refunding bonds.

Okla., Hollis—Harmon County may vote on \$50,000 road bonds.

Okla., Kingfisher—City votes Oct. 14 on \$25,000 sewage disposal plant bonds.

Okla., Perry—City will vote on water supply bonds.

Okla., Sayre—Beckham County votes in November on \$50,000 County Farm bonds.

Okla., Tulsa—Tulsa County Comsn. called election for Nov. 4 on \$500,000 bonds for Tulsa State Fair.

S. C., Cayce—Town, R. C. Allen, Mayor, plans \$55,000 water and sewer system bond issue.

Tex., Bray—McCullough County Commrs. Court called election for Nov. 8 on \$1,055,000 highway improvement bonds.

Tenn., Collierville—City, Fred Kirk, Treas., voted \$30,000 water works bonds.

Tenn., Livingston—City, C. J. Cullom, Mayor, opens bids Oct. 15 for \$60,000, not to exceed 6% water works bonds.

Tex., El Paso—El Paso County, E. B. McClintock, Judge, votes in October on \$400,000 hospital bonds.

Tex., Goodland—Goodland School Dist. will offer \$25,000 bonds for sale in near future.

Tex., Highlands—City voted \$30,000 street and highway bonds.

Tex., Irving—City votes Oct. 25 on \$20,000, not to exceed 6% sewer system and disposal plant bonds.

Tex., Marlin—City, J. M. Kennedy, Mayor, opens bids Oct. 14 for \$47,000, 5% street improvement bonds.

Tex., Menard—Menard County votes Oct. 18 on \$80,000, 5% courthouse and jail bonds.

Tex., Pampa—Gray County reported, votes Oct. 23 on \$2,121,000 road bonds.

Tex., Pharr—City voted \$303,000 warrant refunding bonds and \$20,000 street paving bonds.

Tex., Port Isabel—City votes Oct. 20 (extended date) on \$300,000 bonds: sewer system, \$48,500; city hall and jail, \$6500; water system, \$139,250; street improvements, 65,000; sidewalks, \$25,750; parks, \$15,000.

Tex., Rusk—Cherokee County Commrs. authorized sale of \$125,000 Rusk Road Dist. No. 2 bonds.

Tex., Sinton—San Patricia County votes Oct. 18 on \$30,000 San Patricia County Drainage Dist. No. 3 bonds.

Tex., Snyder—Scurry County votes Oct. 18 on \$600,000, 5½% road bonds.

Tex., Sudan—City votes Oct. 25 on \$35,000, not to exceed 6% sanitary sewer bonds.

Tex., Waco—Lennan County Commrs. will offer \$1,000,000 road bonds for sale Oct. 14.

Tex., Woodville—City votes Oct. 21 on \$30,000, not to exceed 6% water works bonds.

Va., Bloxom—Bloxom School Dist., Accomac County plans voting on \$60,000 bonds.

Bond Issues Sold

Ark., Arkadelphia—Directors of Arkadelphia Special School Dist. No. 1 sold \$125,000 bonds to Brown-Crummer Investment Co., Wichita, Kan., at 96.81.

Ark., Hughes—Hughes Rural Special School Dist., R. C. Nickle, Pres., sold \$82,500 6% bonds to M. W. Elkins & Co., Little Rock.

Ark., Russellville—Bank of Russellville purchased \$50,000, 6% paving bonds at 102.8 plus \$451.

Fla., Apalachicola—Apalachicola State Bank purchased \$75,000 Special School Dist. No. 1 bonds.

Ky., Burkeville—Burkeville Graded School Dist., S. M. Young, Sec., Bd. of Trustees, sold \$10,000 school building bonds to Walter, Woody & Helmerding, Cincinnati, Ohio.

Ky., Fort Thomas—City, Gertrude Leicht, Clk., sold \$81,000, 4½% school bonds to Breed, Elliott & Harrison, Cincinnati, Ohio.

Ky., Lawrenceburg—Anderson County sold \$13,000, 4½% road and bridge bonds to Walter, Wood & Helmerding, Cincinnati, Ohio.

La., Ville Platte—City, Geo. L. Fontenot, Mayor, and Bd. of Aldermen, sold \$26,000 bonds at 100.38.

Miss., Indianola—Commrs. of Beaver Dam Drainage Dist. of Sunflower County, Elbert Johnson, sold \$65,000, 6% bonds to George S. Funk, Shelby, at par and accrued interest.

Miss., Jackson—State sold \$350,000 of

\$850,500, 4½% bonds jointly to Halsey, Stuart & Co., New York, and Merchants Bank & Trust Co., Jackson, at 103.18.

N. C., Charlotte—Mecklenburg County Comsn. sold \$175,000 notes at 3¼% and \$75 premium to American Trust Co.

N. C., Winston-Salem—City, F. J. Peterson, Jr., Commr. Public Accounts and Finance, sold \$300,000, 4½%, \$1000 denom. street, water and general improvement bonds to Kissel, Kinnicutt & Co., New York.

Okla., Tecumseh—Bell Vern Investment Co., Tecumseh, purchased \$15,000 water system bonds.

S. C., Spartanburg—Spartanburg County Bd. of Control sold \$300,000, 4% school and county notes to W. O. Guy & Co., New York.

Tex., Victoria—City sold \$125,000, 5% paving bonds jointly to Southwest Investment Co., Austin, and Mercantile Securities Corp., Dallas, at \$625 premium.

Tex., Victoria—Mercantile Securities Co., Dallas, and Southwest Investment Co., Austin, jointly, purchased \$125,000 school bonds at 100.50.

Va., Cape Charles—City sold \$25,000, 5% bonds to Magnus & Co., Cincinnati, Ohio.

New Financial Corporations

Fla., Orlando—Growers Finance Corp., chartered; R. C. Griffith, Orlando Bank & Trust Bldg.

Mo., Mount Vernon—John O. Burson applied to Comptroller of Currency, Washington, for permission to organize Lawrence County National Bank, capital \$25,000.

A. T. Hudspeth, Harrison, Ark., and associates, acquired Bank of Yellville, Ark., together with its branch banks, Bank of Pyatt, Pyatt, Ark., and Bank of Flippin, Flippin, Ark.

Earnings Show Increase

An interim report for the period ended June 30, 1930, has been issued by the Electric Bond and Share Company, New York, which includes a statement of income, balance sheet and information as to securities owned and net value of assets for the company's preferred and common stocks. Earnings per share of common stock on the total shares outstanding June 30, 1930, as compared with earnings previously reported of \$2.14 were \$2.46, for the 12 months ended March 31, 1930, and \$1.97 for the 12 months ended December 31, 1929. Based on average number of shares outstanding during each period, earnings for the 12 months ended June 30, 1930, were \$2.55, as compared with \$2.31 for the 12 months ended March 31, 1930, and with \$2.22 for the 12 months ended December 31, 1929. The company's balance sheet June 30, 1930, shows total current assets of \$109,771,927 and total current liabilities of \$11,469,787.

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borrowers and depositors, and
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our success.

BALTIMORE COMMERCIAL BANK

GWYNN CROWTHER, President

26 South Street, Baltimore, Md.

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Member Federal Reserve System

an old formula has changed

“No longer can the business man work hard for twenty years, attain success and then sit back to reap the rewards of diligent effort. It could be done in 1900 . . . it can't be done today.

“Competition and change and the passing of time have altogether wrought a great variant in the old success formula. A man may work hard and attain success . . . but he must work even harder to hold on to it.

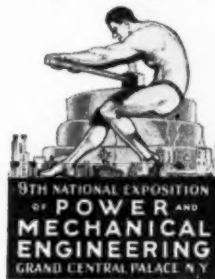
“In the twinkling of an eye, the labors of a lifetime can be swept away in the current of change. Overnight, something new . . . produced in a new way . . . may relegate your product to the industrial junk heap. Ground plans for factories that will antique and replace your own may at this moment be under way. For so closely interwoven are the fringes of all business, that the slightest tremor in one quarter is felt all along the line.

“But . . . it is as easy to profit by these swift changes as it is to fall failing under foot. **”**

From NATION'S BUSINESS

And . . . to know what these swift changes are doing for producers and users of power . . . leading engineers and executives visit the National Power Show from every industrial center of this country and the world. Each year the number of visitors has increased. This year's Exposition will surpass all predecessors in interest, in volume, in importance.

Profit by what others have wrought for your benefit . . . let nothing keep you from this, the outstanding engineering activity of the year.



December 1 to 6

Grand Central Palace, New York

Management International Exposition Company

LOUISIANA PLANS \$5,000,000 CAPITOL

Building Committee Orders Plans

Baton Rouge, La.—The building committee of the new 30-story Louisiana state capitol, for which a \$5,000,000 bond issue will be voted upon November 4, has instructed Weiss, Dreyfous & Seiferth, New Orleans, architects, to proceed with working drawings for the structure. A site has been selected on the old campus of the Louisiana State University near University Lake, the main portion of the structure to cover a ground area of 150 by 340 feet. This part of the building would serve as a base for the tower which would be more than 400 feet high. Above the fourth floor, the next two floors would be slightly smaller, the shaft starting at the sixth floor and proceeding approximately 70 feet square for 15 additional stories. On the top of these, there would be two additional smaller stories, which would be the last useful office rooms, and above these the mechanical rooms would carry the structure to 28 stories. This would form the base of a huge 15-foot lamp which would make up the last two stories. The building committee is composed of the Governor, Secretary of State James J. Bailey, Mayor Wade H. Bynum of Baton Rouge, State Superintendent of Education T. H. Harris and George W. Wallace, secretary of the Louisiana Tax Commission.

Southern Textile Exposition

Greenville, S. C., October 6.—On October 20, two weeks from today, the Ninth Southern Textile Exposition will be opened with an address of welcome by Governor-elect, Ibra C. Blackwood. Two hundred exhibitors from New England, the North and the Middle West have taken the entire four exhibition floors of Textile Hall. In addition, a large room will be occupied by an exhibit of rare ancient and modern fabrics owned by Clemson College.

Gains In Aluminum Industry

Aluminum products valued at \$147,307,270 are reported for 1929 by the Department of Commerce, based on the business of establishments engaged primarily in that line of manufacture. This total is an increase of 19.2 per cent over 1927, the preceding census year.

Among the items specified are aluminum kitchen and household appliances, other than electric, \$28,567,876; other aluminum ware, \$6,094,956; motor vehicle accessories and parts, \$11,719,-

444, and castings, \$21,164,807. The value of aluminum products outside the industry proper has not been computed for 1929, but ran to \$21,352,976 in 1927.

Aluminum establishments numbered 139 in both 1929 and 1927, with 20,803 wage earners in 1929, an increase of 40.6 per cent, and wages at \$29,428,067, an increase of 40.9 per cent.

Car Shops Resume Work

Announcement is made of the reopening of the Southern Railway car shops at Hayne, N. C., and hope is expressed that this is to be the first in a series of resummptions of work on several Southern lines. The workers at Hayne have had a two-months furlough and, although all have not been recalled at this time, full force operation is regarded as not improbable.

\$900,000 County Highway Bonds

Fort Worth, Tex.—The recent sale of \$900,000 Tarrant County highway bonds to G. H. Walker & Co., St. Louis, Mo., and associates, at par, accrued interest and premium of \$16,269, is the third block of a \$4,920,000 bond issue voted by the county in 1928. There remains unsold \$900,000 of the bonds, which bear an interest rate of 4½ per cent.

Contract for Boiler Units

Boncar, W. Va.—The Combustion Engineering Corporation, New York, was awarded contract by the West Virginia Hydro-Electric Co., subsidiary of the Union Carbide & Carbon Corp., New York, for two pulverized coal fired boiler units to be installed here. The contract involves \$500,000 and calls for two Walsh-Weldner single pass, sectional head boilers, Interdeck Elesco superheaters, boiler and furnace settings, fin tube walls for the four sides of each furnace and plain tube water screens for furnace bottoms, pulverized fuel burning equipment, duct work and supporting steel. The boilers are designed for 488-pound pressure, with an operating pressure of 450 pounds and a superheated steam temperature of 750 degrees Fahrenheit. This is a mine-mouth plant, utilizing coal direct from the tipples. Ford, Bacon & Davis, Inc., New York, are the consulting engineers.

An issue of \$1,000,000 to retire outstanding bonds has been sold by the City of Knoxville to the Bankers Company of New York, at a 2.75 per cent rate less a premium of \$101.

\$1,100,000 Houston Hotel Sold

Houston, Tex.—The Plaza Apartment Hotel here, erected in 1926 at a cost of \$1,100,000, has been sold by the Houston Plaza Corporation to the Pennsylvania Corporation, Pittsburgh, Pa., W. H. Robinson, president, owner of a number of hotels in the South which the company recently acquired. These include four in Miami, Fla.; the La Concha, Key West, Fla.; Orange Court, Orlando, Fla.; Bayshore Royal, Tampa, Fla., and the Fort Sumter, Charleston, S. C. The Watson in Miami will be renamed the Miami Colonial Hotel and will become headquarters for the company. The Henrietta Towers, also in Miami, will be renamed the Colonial Towers, while the Venetian and William Penn hotels in Miami will retain their present names. Jennings Love is the general manager of the chain.

Completes \$3,250,000 Water System

St. Petersburg, Fla.—A new \$3,250,000 water system to supply soft water to St. Petersburg was formally opened on September 18. The water is brought from an underground reservoir 30 miles to the north of the lake region through a 36-inch aqueduct and has a gravity flow of about 10,000,000 gallons daily. Reservoirs in the city have sufficient capacity to impound a week's supply and beside this there are local facilities for supplying 10,000,000 gallons daily in the event of an emergency.

Road Delegates to Visit Florida

Pensacola, Fla.—More than 100 delegates representing 60 foreign nations, meeting in the sixth International Road Congress from October 6 to 11, are expected to tour Florida roads from October 20 to 24. The party is expected in Tallahassee October 20, where it will be entertained at dinner at which Governor Doyle E. Carlton will speak. The purpose of the tour is to permit the delegates to study highway transport conditions in various sections of the United States.

Offers \$1,000,000 Road Bonds

Waco, Tex.—Road bonds in the amount of \$1,000,000 will be offered by the McLennan County Commissioners October 14. Of this issue, \$150,000 will be advanced to the State Highway Commission, in addition to a \$100,000 advance already authorized, to finance the grading and drainage of highway No. 2 south, a portion of highway No. 67 and highway No. 7, east and west from Waco.

Buys Gas System—Plans Pipe Line

Amory, Miss.—The Amory Natural Gas Company, operating the gas distribution system here, has been acquired by the Mississippi Natural Gas Corporation, Birmingham, Ala., according to W. Rawson Collier, vice-president and general manager of the latter. For the present, there will be no change in the corporate name of the local company and the present manager and his associates will continue in charge of the plant. The purchase involves some 40,000 acres of land on which producing wells now supply natural gas for the Amory distribution system. Plans of the Mississippi Natural Gas Corporation include the construction of a pipeline from Amory to Tupelo, Okalona, and Aberdeen, Miss.

Work on \$2,210,000 Coal Pier

Newport News, Va.—Work on the new \$2,210,000 coal pier being erected here for the Chesapeake & Ohio Railway Co. is progressing, with approximately 800 feet of bulkhead completed. The W. Horace Williams Company, New Orleans, La., general contractor, has completed the casting of reinforced concrete piles for the entire project and has driven piles for the abutment and a few

for the main pier. The bulkhead was completed by Alsop & Pierce, Newport News, sub-contractors for the creosoted timber work, while the Arundel Corporation, Baltimore, sub-contractor for dredging, has completed about one-third of it. The Jones & Laughlin Steel Company, Pittsburgh, Pa., has contract for reinforcing steel; and the Richmond Sand & Gravel Corp., Richmond, for sand and gravel.

Coosa-Alabama River Development Discussed

Rome, Ga.—At a recent conference here, called jointly by Governors L. G. Hardman of Georgia and Bibb Graves of Alabama, and participated in by federal and state officials, it was declared that the development of the inland waterways system of the United States should be treated as a national project and not as local in sections it will affect. The meeting was held to discuss the development of the Coosa-Alabama rivers from Rome to Mobile, which contemplates the expenditure of \$40,000,000 for a 9-foot channel to make the stream navigable the year round. The War Department was represented at the conference by Maj.-Gen. T. G. Ashburn, chairman of the executive committee of the Inland Waterways Corp.

Bids on \$500,000 Home

Bids will be opened October 11 by the Methodist Episcopal Home for the Aged, George R. Bullen, chairman of the Building committee, 619 W. Franklin street, Baltimore, to erect a new \$500,000 home at Mt. Washington, Baltimore. The new structure will be of brick to accommodate 175 inmates. O. Eugene Adams is the architect; Henry Adams, Inc., mechanical engineer, and Herman F. Doeleman, structural engineer, all of Baltimore. The following Baltimore contractors are estimating: Benj. F. Bennett Building Co., Tase-Norris Co., Inc., Morrow Bros., Inc., Consolidated Engineering Co., Inc., Frainie Bros. & Haigley, M. A. Long Co., and Thomas Hicks & Sons, Inc.

To Make Face Powder from Clay

Warm Springs, Ga.—The Ceresine International Products Company, Inc., Fuller Wishart, president, and Wade Moss, vice-president, with temporary headquarters in Columbus, Ga., has closed a contract with the Maryland Metal Building Company, Baltimore, for the first unit of a 4-unit plant to be constructed here or at Durand, Ga., to manufacture face powder from clay. The clay will be mined from a 400-acre tract of land near Warm Springs and it is understood that mining machinery has been ordered.



PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS



Bids close November 10, 1930.

TREASURY DEPARTMENT, office of the supervising architect, Washington, D. C., October 6, 1930.—SEALED BIDS will be opened in this office at 3 p. m., November 10, 1930, for the construction of the U. S. post office, etc., at Mexia, Texas. Drawings and specifications, not exceeding six sets, may be obtained by any satisfactory general contractor at this office, in the discretion of the supervising architect. JAS. A. WETMORE, Acting Supervising Architect.

Bids close October 24, 1930.

TREASURY DEPARTMENT, office of the supervising architect, Washington, D. C., October 3, 1930.—SEALED PROPOSALS will be opened in this office at 3 p. m., October 24, 1930, for furnishing the materials and performing the work required for miscellaneous repairs to elevators in the following buildings: 1358 B St., S. W., 220 14th St., S. W., and 221 Linworth Place, S. W., at Washington, D. C. Specifications may be obtained from this office. JAS. A. WETMORE, Acting Supervising Architect.

Bids close October 10, 1930.

TREASURY DEPARTMENT, office of the supervising architect, Washington, D. C., September 26, 1930.—SEALED BIDS will be opened in this office at 3 p. m., October 10, 1930, for miscellaneous changes in hearing rooms and cafeteria, new partitions, cabinets, etc., in the U. S. Internal revenue bldg. (building, bureau of internal revenue), Washington, D. C. Drawings and specifications may be obtained at the office of the supervising architect. JAS. A. WETMORE, Acting Supervising Architect.

GENERAL INFORMATION

About Proposal Advertising in Manufacturers Record

PUBLICATION DAY: Thursday.
FORMS CLOSE: 10 A. M. Tuesday.

When too late to send copy by regular mail to reach us by 10 A. M. Tuesday, forward by night letter or air mail when possible.

THE DAILY CONSTRUCTION BULLETIN OF THE MANUFACTURERS RECORD

Published every business day, gives information about the industrial, commercial and financial activities of the South and Southwest.

The Daily Construction Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened or when daily insertions are necessary to meet legal requirements.

The rate is the same for both publications—35 cents a line each insertion.

Bids close October 20, 1930.

TREASURY DEPARTMENT, office of the supervising architect, Washington, D. C., Sept. 22, 1930.—SEALED BIDS will be opened in this office at 3 p. m., Oct. 20, 1930, for the extension and remodeling of the U. S. post office, etc., at Pittsfield, Mass., including the demolition and removal of existing frame building on the site. Drawings and specifications, not exceeding six sets, may be obtained at this office in the discretion of the supervising architect, by any satisfactory general contractor. JAS. A. WETMORE, Acting Supervising Architect.

Bids close October 15, 1930.

DEPARTMENT OF INTERIOR, Washington, September 15, 1930. Sealed proposals in duplicate will be received at the Department until 2 o'clock p. m., Wednesday, October 15, 1930, for furnishing all labor and materials for installing complete at Saint Elizabeths Hospital, Washington, D. C., one boiler, superheater, economizer and stoker, together with brick setting, piping, breeching, etc., in accordance with specifications, copies of which may be obtained from the Superintendent, Saint Elizabeths Hospital, or the Chief Clerk of the Department. The right is reserved to reject any or all bids, waive technical defects, or to accept one part and reject the other as the interests of the Government may require. Proposals must be marked "Proposals for installing boiler, superheater, economizer and stoker at Saint Elizabeths Hospital," and be addressed to the Secretary of the Interior, Washington, D. C. JOHN H. EDWARDS, Assistant Secretary.

STATE OF ARKANSAS BONDS

\$4,850,000

Bids close November 6, 1930.

State of Arkansas Toll Bridge Bonds \$2,500,000

Little Rock, Ark.

Sealed bids for the below described serial coupon bonds of the State of Arkansas will be received by the State Note Board of the State of Arkansas until 10 o'clock A. M. on the 6th day of November, 1930, at which time bids will be opened in public in the Reception Room of the Governor's office in the State Capitol in the City of Little Rock, Arkansas, to wit:

\$2,500,000 Toll Bridge Bonds, dated the 1st day of November, 1930, bearing interest at the maximum rate of five per centum per annum, payable semi-annually on the 1st days of May and November and maturing as follows:

\$25,000, 1931;	\$105,000, 1944;
35,000, 1932;	110,000, 1945;
50,000, 1933;	115,000, 1946;
55,000, 1934;	120,000, 1947;
60,000, 1935;	125,000, 1948;
65,000, 1936;	130,000, 1949;
70,000, 1937;	135,000, 1950;
75,000, 1938;	145,000, 1951;
80,000, 1939;	150,000, 1952;
85,000, 1940;	155,000, 1953;
90,000, 1941;	160,000, 1954;
95,000, 1942;	165,000, 1955;
100,000, 1943;	

Said bonds will be issued in the denomination of \$1000 each, and will be in coupon form, but may be registerable as to principal at the option of the holder. The bonds are general obligations of the State of Arkansas and the full faith and credit of the State are irrevocably pledged to the payment of the principal and interest thereof.

Bids will be received for bonds bearing interest at 4, 4½, 4¾, 5 and 5 per centum per annum. Each bid must be accompanied by cashier's check in the sum of \$25,000.00, payable to the State Treasurer of the State of Arkansas. All checks accompanying bids not accepted will be promptly returned. The State Note Board reserves the right to reject any and all bids and waive all formalities in bids and to award said bonds or any part thereof to the bidder or bidders whose bid or bids are most advantageous to the State of Arkansas.

The principal and interest of the aforesaid bonds will be payable in lawful money of the United States at the Chase National Bank of the City of New York, N. Y., and the approving opinion of Messrs. Thomson, Wood & Hoffman of New York City and Messrs. Rose, Hemingway, Cantrell & Loughborough of Little Rock, Arkansas, will be furnished by the State to the purchasers.

RALPH KOONCE,
State Treasurer.

Bids close November 6, 1930.

State of Arkansas State School Bonds \$500,000

Little Rock, Ark.

Sealed bids for the below described serial coupon bonds of the State of Arkansas will be received by the Board authorized to sell same until 10 A. M. on the 6th day of November, 1930, at which time all bids will be opened in public in the Reception Room of the Governor's office in the State Capitol in the City of Little Rock, Arkansas. Said bonds are described as follows, to wit:

\$500,000.00 of state school bonds, dated November 1, 1930, bearing interest at the rate of 4, 4½, 4¾, 5 and 5 per centum per annum, payable semi-annually on June 1 and December 1 of each year and maturing as follows:

\$25,000.00 on December 1 in each of the years 1938 to 1957, both inclusive.

All of said bonds will be issued in the denomination of \$1,000 and shall be in coupon form, but may be registered as to principal at the option of the holder. The bonds will constitute general obligations of the State of Arkansas for the payment of the principal and interest of which the full faith and credit of the State shall be irrevocably pledged.

The principal and interest of the afore-

said bonds will be payable in lawful money of the United States at the Chase National Bank of the City of New York, N. Y. The approving opinion of Thomson, Wood & Hoffman of New York City will be furnished by the State to the purchasers.

Each bid must be accompanied by a cashier's check in the sum of \$10,000.00, payable to the State Treasurer of the State of Arkansas. All checks accompanying bids not accepted will be promptly returned.

The proceeds of this bond issue are to be used for the Revolving Loan Fund to aid the schools of Arkansas. The Board authorized to sell said bonds reserves the right to reject any and all bids and to waive formalities. No bid for less than par and accrued interest will be accepted.

Given this 2nd day of October, 1930.

STATE DEBT BOARD OF THE STATE
OF ARKANSAS.

By RALPH KOONCE,
Secretary.

Bids close November 6, 1930.

State of Arkansas State Pension Obligations \$1,850,000

Little Rock, Ark.

Sealed bids for One Million Eight Hundred and Fifty Thousand Dollars (\$1,850,000) serial coupon obligations of the State of Arkansas will be received by the Board authorized to sell same until 10 A. M. on the 6th day of November, 1930, at which time bids will be opened in public in the Reception Room of the Governor's office in the State Capitol in the City of Little Rock, Arkansas. Said coupon obligations are the direct obligations of the State of Arkansas, are negotiable, payable to bearer, and may be registered. Said obligations will be dated November 1, 1930, and will mature serially as follows:

\$1,000 November 1, 1932;	
1,000 October 1, 1933;	
3,000 " 1, 1934;	
10,000 " 1, 1935;	
40,000 " 1, 1936;	
40,000 " 1, 1937;	
40,000 " 1, 1938;	
65,000 " 1, 1939;	
90,000 " 1, 1940;	
90,000 " 1, 1941;	
110,000 " 1, 1942;	
130,000 " 1, 1943;	
130,000 " 1, 1944;	
140,000 " 1, 1945;	
150,000 " 1, 1946;	
150,000 " 1, 1947;	
150,000 " 1, 1948;	
165,000 " 1, 1949;	
165,000 " 1, 1950;	
180,000 " 1, 1951.	

The obligations will be issued in denominations of One Thousand Dollars (\$1000). Bids will be taken on the basis of interest at 4, 4½, 4¾, 5 and 5 per centum per annum, principal and interest payable in lawful money of the United States at the Chase National Bank of the City of New York. Approving opinion of Thomson, Wood & Hoffman of New York City and Rose, Hemingway, Cantrell & Loughborough of Little Rock, Arkansas, will be furnished to the purchasers. The purchasers will be required to pay the expenses of such opinions, cost of printing the bonds and other incidentals, amounting to Seven Thousand Dollars (\$7000), and this item must be separately stated in the bid.

The proceeds of this issue are to be used by the State in paying pensions, and the full faith and credit of the State are pledged for the prompt payment of said obligations and the interest thereon.

Each bid must be accompanied by cashier's check in the sum of \$20,000.00, payable to the State Treasurer of the State of Arkansas. All checks accompanying bids not accepted will be promptly returned. The Board authorized to sell said obligations reserves the right to reject any and all bids and waive all formalities in bids and to award said obligations or any part thereof to the bidder or bidders whose bid or bids are most advantageous to the State of Arkansas.

RALPH KOONCE,
State Treasurer.

Bids close October 14, 1930.

Bridge Work

STATE OF MARYLAND
STATE ROADS COMMISSION

NOTICE TO CONTRACTORS

Baltimore, Md.

SEALED PROPOSALS for repairs to bridge as follows:
St. Mary's County, Contract No. SM-75-811
—Repairs to slab bridge over Brooks Run on the road from Leonardtown to Hollywood

will be received by the State Roads Commission at its offices Federal Reserve Bank Building, Calvert and Lexington Streets, Baltimore, Maryland, until 12 M. on the 14th day of October, 1930, at which time and place they will be publicly opened and read.

Bids must be made upon the blank proposal form which, with specifications and plans, will be furnished by the Commission upon application and cash payment of \$1.00, as hereafter no charges will be permitted.

No bids will be received unless accompanied by a certified check for the sum of Five Hundred (\$500) Dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond and comply with the Acts of the General Assembly of Maryland respecting contracts.

The Commission reserves the right to reject any and all bids.

BY ORDER of the State Roads Commission this 30th day of September, 1930.

G. CLINTON UHL, Chairman.
L. H. STEUART, Secretary.

Bids close November 6, 1930.

Earthen Dam

Brownwood, Texas.

Sealed proposals will be received up to 2 o'clock P. M. November 6, 1930, by the Board of Directors of Brown County Water Improvement District Number One, Brownwood, Texas, for the constructing of an earthen Reservoir Dam and appurtenant works across Pecan Bayou, about 8 miles above the city of Brownwood, Brown County, Texas, including a spillway for Reservoir. Such dam will involve the following principal quantities:

Dam Embankment....	730,000 Cubic Yards
Excavation for Cut-off	
Trench and for Con-	
duits	96,000 " "
Riprap	15,000 " "
Gravel Blanket	5,000 " "
Rock Fill	5,000 " "
Concrete in Conduits,	
Gate Wells and Gate	
House	7,500 " "
Concrete in Spillway	
Channel	3,600 " "
Steel Sheet Piling...	8,000 Square Feet
Reinforcing Steel....	1,344,000 Pounds

The foregoing quantities are approximate, and are submitted only for the purpose of enabling prospective bidders to estimate the probably volume of the contract. Plans and specifications can be secured at the office of the Engineer of the District at Brownwood. A deposit of \$30.00 must accompany request for a set of plans and specifications, which deposit will be returned to those submitting bona fide bids and upon return of such plans and specifications by others who have been furnished same.

Proposals shall be accompanied by a certified or cashier's check in the sum of five (5%) per cent of the total estimated amount of the bid, based upon the schedule of approximate quantities shown on the form of proposal that will be furnished to the bidder by the Engineer of the District.

Checks of unsuccessful bidders will be returned to them 3 days after bids are opened, except that the checks of the 3 lowest bidders will not be returned until after the contract has been executed and bond made, which bond shall be not less than 50 per cent of the amount of the contract, and each bidder shall accompany his bid with a certificate from a Surety Company duly authorized to do business in this State, stating that such Surety Company will provide such bidder with a bond in such sum as is required and in accordance with the provisions of the said specifications, conditioned for the faithful performance of the contract. Such contract shall be signed within ten (10) days from date of award. The District reserves the right to reject any or all bids.

BROWN COUNTY WATER IMPROVE-
MENT DISTRICT NO. 1.

F. S. ABNEY, President.
H. G. LUCAS, Secretary.
D. W. ROSS,

Engineer of District.

Brownwood, Texas, September 15, 1930.

Bids close October 20, 1930.

Bridge

Inverness, Fla.
Sealed proposals addressed to the Board of County Commissioners, Inverness, Fla., and marked "Sealed Proposal" will be received until 11 A. M., October 20, 1930, to be opened immediately thereafter, for furnishing material, equipment and labor, and constructing certain work approximately as follows:

One 500-ft. Bridge across Withlacoochee River, east of Inverness, near Rutland Bridge. The bridge will consist of Steel I-Beams supported by concrete pile piers, with concrete floor. Alternate bids will be received on bridge with creosoted timber floor.

Each bid is to be on blank forms furnished by Clerk, and is to be accompanied by a certified check, made payable to the Board of County Commissioners, for \$1500.00.

Certified check will be forfeited as liquidated damage if contract and bond are not executed within the time specified, if proposal is accepted; otherwise will be returned within ten days.

The right is reserved to reject any and all bids.

Plans and specifications may be seen at the office of the Clerk at Inverness, Fla., and at the offices of the Engineers at Atlanta, Ga., and plans and specifications may be obtained from the Engineers upon payment of \$3.00 to cover cost of reproduction.

J. K. KELLY, Chairman.
CLAUDE CONNOR, Clerk.

E. V. CAMP & ASSOCIATES, INC.,
Moreland and DeKalb Avenues,
Atlanta, Ga.

Bids close October 14, 1930.

Maryland Highway Work

STATE OF MARYLAND
STATE ROADS COMMISSION

NOTICE TO CONTRACTORS

Baltimore, Md.
SEALED PROPOSALS for building three sections of State Highway as follows:

Baltimore City, Contract No. BC-97-72—One section of State Highway along the Harford Road from List Avenue to Strathmore Avenue, a distance of 0.46 mile (sheet asphalt)

Dorchester County, Contract No. D-66-12—One section of State Highway along the Finchville-Federalburg Road, from the end of Contract No. D-43 toward Federalburg, a distance of 0.9 mile (concrete)

Garrett County, Contract No. G-62-63—One section of State Highway from the end of the bridge over the Western Maryland Railroad at Gorman to the beginning of Contract No. G-41, a distance of 0.08 mile (concrete)

will be received by the State Roads Commission at its offices Federal Reserve Bank Building, Calvert and Lexington Streets, Baltimore, Maryland, until 12 M. on the 14th day of October, 1930, at which time and place they will be publicly opened and read.

Bids must be made upon the blank proposal form which, with specifications and plans, will be furnished by the Commission upon application and cash payment of \$1.00, as hereafter no charges will be permitted.

No bids will be received unless accom-

panied by a certified check for the sum of Five Hundred (\$500) Dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond and comply with the Acts of the General Assembly of Maryland respecting contracts.

The Commission reserves the right to reject any and all bids.

BY ORDER of the State Roads Commission this 30th day of September, 1930.

G. CLINTON UHL, Chairman.
L. H. STEUART, Secretary.

Bids close November 4, 1930.

Notice for Proposals on Utilities

Morehead City, N. C.

Sealed proposals will be received by the City of Morehead City, North Carolina, at Seven (7.00) o'clock P. M. on November 4th, 1930, at the office of the City Clerk for the purchase of Electric and Water Systems now owned and operated by that city.

Should an acceptable proposal be received, this will be submitted to the voters for ratification.

A certified check in an amount of not less than Five Thousand (\$5,000.00) Dollars is required, and the right is reserved to reject any or all proposals.

HON. K. P. B. BONNER, Mayor
Further information may be obtained from the undersigned:

UTILITIES ENGINEERING &
MANAGEMENT COMPANY,
917 Johnston Building,
Charlotte, N. C.

CLASSIFIED OPPORTUNITIES

MINERAL AND TIMBER LANDS, WATER POWER, MISCELLANEOUS PROPERTIES

FOR SALE—5000 acres oil and gas leases on structure, settled production. Royalties and mineral rights on large tract. Complete data furnished on request.

W. P. HARLEY, Bowling Green, Ky.

MINERAL LAND in Brazoria County, Texas, adjoining and near to producing Oil and Sulphur Fields.

Also tracts on Geophysical dome prospects and natural surface Uplifts. This land is in the most promising region of Coastal Plains. Will sell at a bargain, but must retain a small royalty interest in minerals. Owner, Box 656, Houston, Texas.

KAOLIN

FOR SALE—400-acre Kaolin within ten miles of Augusta, Georgia, two miles from railroad. Address

B. L. MIMS, Edgefield, S. C.

ROCK QUARRY

FOR SALE—16 acre rock quarry, Irmo, S. C., on railroad. Address

A. C. WINGO,
3005 Columbia Avenue, Columbia, S. C.

COAL LANDS AND MINES

FOR SALE—Eastern coal property, 100,000 acres, 7 foot Pittsburgh seam; big production.

BOX 653, KANSAS CITY, MO.

TIMBER AND TIMBER LAND

CUT-DOWNS FOR SALE—3/16" air dried cottonwood, 3" to 10" wide and 10" to 20" long. Will saw to your sizes. Missouri Veneer Company, Mokane, Missouri.

WE HAVE exclusive sales privilege for more than 500,000 acres of Florida land at sacrifice prices. Also large areas in Georgia and South Carolina. Desirable second growth pine lands; agricultural lands adapted to tung oil and citrus crops, grazing lands, etc. To share in the assured future of Florida and the South INVESTIGATE NOW.
THE JAMES D. LACEY COMPANY,
1409 Barnett Bldg., Jacksonville, Fla.

Rates, Terms and Conditions

RATES: 30 cents a line each insertion. Minimum space accepted, four lines. In estimating the cost allow six or seven words of ordinary length to a line. When the advertisement contains a number of long words proper allowance should be made.

Rates for Special Contract:

100 lines 28c a line
300 lines 26c a line
500 lines or more 25c a line

TERMS: For transient advertising cash with order; check, postoffice or express money order or stamps accepted.

On special contract advertising bills are rendered monthly, covering space used each month, payable within ten days.

CONDITIONS: No patent medicine, oil or mining stock advertisements or questionable or undesirable advertisements will be accepted. The assistance of our readers in excluding undesirable advertisements is requested. No display type used.

FARM, FRUIT AND TRUCK LANDS**FLORIDA**

5000 ACRES of IDEAL TUNG OIL and general Agriculture land at a real bargain price if sold quick.
A. A. GEITGEY, Glen St. Mary, Florida.

50 ACRES in grove, about 1/2 orange and 1/2 grapefruit. Oranges are about 1/2 Valencia and 1/2 Pineapple. Trees range in age from 6 to 20 years. 50 acres cleared and fenced. 50 acres uncleared. Land has double Orange River frontage of about 1/2 mile. Improvements consist of artesian well, tenant house, storage warehouse and barn. Seven miles from court house, 1 mile from highway. Price \$40,000.00. Terms.

P. JOHN HART REALTY CORP.,
P. O. Arcade,
Fort Myers, Fla.

FARM, FRUIT AND TRUCK LAND**LOUISIANA**

ST. CHARLES PARISH, LOUISIANA, offers opportunities in cattle ranches, agricultural and industrial sites. St. Charles Bank & Trust Co., Sellers, La.

MISSISSIPPI

"PECAN ORCHARD for sale—97 acres on fine highway in edge of good town. Trees beginning to bear. Ideal location adjoining Lake Yearger, etc. Prices and terms on request. Bass Pecan Co., Lumberton, Miss.

SOUTH CAROLINA**ISLAND FOR SALE**

Four thousand acres, South Carolina coast. One thousand cleared, beautiful trees and scenery, several old home sites, high bluffs. Fish, oysters and game. Duck pond, artesian wells, cottage, tenant houses. Suitable game preserve, private estate, stock ranch or commercial farming.

J. W. BARNES,
Mendel Building, Savannah, Georgia.

SOUTHERN PROPERTY

FOR SALE—FOR LEASE—The best in Estates, Homes and Homesites on Florida's West Coast. Also inexpensive ones. J. M. CLARK, Box 991, Sarasota, Florida.

HUNTING PRESERVE

IDEAL VIRGINIA HUNTING PRESERVE AND FARM—1450 Acres.

700 acres woodland, balance farming land, pasture and meadows, watered by large creek and small streams. Attractive modern nine-room residence, three baths, steam heat and water system. Manager's house, several tenant settlements and stock barns.

Abundance of game, such as wild turkeys, quail, rabbits, squirrels and fur-bearing animals; some deer.

Located thirty miles from Lynchburg, seven miles from small town. Photographs, price and full details on request. Non-resident owner, anxious to sell.

GEO. V. VENABLE & CO.,
Lynchburg, Virginia.

BUSINESS OPPORTUNITIES

LONG TERM LOANS, large amounts, made on industrial, mercantile, sawmill properties. THOS. W. GILMER, Attorney, Bay Minette, Alabama.

FOR SALE—Established jewelry store and repair shop in County Seat—town in Northeast Arkansas. Population 4500. Retiring from business. Address No. 9050, care of Manufacturers Record, Baltimore, Md.

WANTED—PARTNER

To help finance and take active part in management of well established Virginia ham curing plant. Ten thousand hams sold during one month. Address No. 9047, care of Manufacturers Record, Baltimore, Md.

MANUFACTURERS—Write for our **FREE** Classification Sheets of inventions for sale, covering 135 main subjects, and in one or more of which you will doubtless be interested. ADAM FISHER MFG. CO., 578 Enright, St. Louis, Mo.

FOR SALE—Long established, nationally known manufacturing business. Well located. Exceptional expansion possibilities. Value, including factory building, 300 by 60 feet, \$75,000. This is a real opportunity for someone. General Mgr., Box 229, Fostoria, O.

WANTED—Partner with reasonable amount capital to join practical construction man General Construction Business. I have had ten years experience in building highways, streets, bridges, sewers. Plenty of labor; climate conditions excellent for working all winter in Southern States. Opportunities unlimited. Address No. 9045, care of Manufacturers Record, Baltimore.

HOTEL

3 story brick 42 rooms located Gadsden, Alabama one of the fastest growing towns in state on Main Highway, steam heat, completely furnished, about 15 months old, average clearing about \$1,000.00 per month. Owner compelled to retire on account of ill health. Price \$65,000.00. Will arrange reasonable terms.

RUEL MORRISON,
2012 4th Ave. No. Birmingham, Ala.

FOR SALE

A profitable industry, manufacturing products of nationwide necessity, located in the best section of the South, by a client of mine, whose books I have audited for the past 18 years and which have always shown a substantial profit. Reason for selling, owner is reaching age of retirement, with no son to carry on the business. For full information address

C. L. VANN, C.P.A.,
Box 767, Charleston, S. C.

FINANCIAL

WANTED—To represent individuals, companies, having money to loan on meritorious Western city property. Industrial, farms, ranches; usual safeguards. A. M. Riedesel, Denham Bldg., Denver, Colo.

TRANSLATIONS

COMMERCIAL and Manufacturers' translations, letters, advertising matter into and from French, German, Italian, Portuguese and Spanish. Letter rates 25c per 100 words into English, 35c per 100 words into other languages. F. M. ELLIS, Griffin, Ga.

ADVERTISING - MAILING LISTS, ETC.

MAILING LISTS—COMPLETE DIRECT MAIL CAMPAIGNS. Why don't you use more Direct Mail Advertising? Don't tolerate dull business. Your returns will be surprisingly good if you'll use Faultless Mailing Lists, and have your Sales Copy written by our Experts. \$375 campaign produced \$65,000 NEW business. Campaign Planned, Printed and Mailed. "Combernation Folder" FREE. Showing THOUSANDS of mailing lists, cost of Copy, Printing, etc. Write FAULTLESS ADVERTISING CORPORATION, Dept., McClurg Bldg., Chicago, Ill.

ENGINEERING SERVICE

GENERAL ENGINEERING SERVICE

Designs, estimates, surveys, appraisals and examinations for real estate development, building construction. Address No. 9049, care Manufacturers Record, Baltimore.

INDUSTRIAL SURVEYS

ENGINEERING REPORTS on resources of cities and towns. Recommendations for industrial development and zoning made by specialists in locating industries.

TECHNICAL SERVICE CO.,
Woolworth Building New York City

INDUSTRIES WANTED

WELL-LOCATED Southern town wants industry. Will furnish plant, moving expenses, additional capital and other concessions.

INDUSTRIAL SERVICE CORP.,
Asheville, N. C.

INDUSTRIAL PLANTS

FOR SALE
SHEET METAL STAMPING PLANT fully equipped and operating. Sheets and angles available at mills here. Address H. McDERMOTT,
P. O. Box 42, Birmingham, Ala.

COMPLETE WOODWORKING PLANT, suitable for furniture or other wood articles. Dry kiln side track, with ample trained labor available. Can be bought for less than one-half reproduction value. First Securities Company, Chattanooga, Tenn.

FOR SALE OR RENT

Former brewery building alongside of L & N tracts, plenty of trucking space, equipped with two 35 ton ammonia compressors and steam boilers. Three stories, Fire proof construction.

T. P. McLAUGHLIN
520 Elysian Fields Ave.,
New Orleans, La.

FOR SALE—Manufacturing plant equipped for manufacture of sanitary enameled iron ware; such as bath tubs, lavatories, kitchen sinks, etc. Could readily be converted into general foundry and machine works, if desired. Well located in eastern section of middle west. Shipping facilities embrace both rail and water. Labor conditions good. Financial assistance, to some extent, could be obtained. Address No. 9044, care of Manufacturers Record, Baltimore, Md.

FOR SALE—IN ATLANTA, GEORGIA.

On Southern Railway, Lumber Yard and Woodworking Plant for the manufacture of interior finish and millwork. Motor driven machinery, side tracks for unloading from cars direct to mill, warehouse and sheds. Going concern with established trade. Present location over 25 years. On main thoroughfare near center of city; 2½ acres. Fine operating proposition and growing investment. Will sign five year lease at attractive rental. Address No. 9046, care of Manufacturers Record, Baltimore, Md.

FACTORY AND WAREHOUSE SITES

FOR MANUFACTURING OR WAREHOUSE
Corner Lot 99x340.

Well located on good street and extending back to tracks of three railroads. A special price to a quick buyer.

F. C. ABBOTT & CO.,
201 Johnston Building,
Charlotte, N. C.

33 years in Charlotte Real Estate.

FACTORY SITES

FACTORY SITE
ON DEEP WATER

If you are seeking an ideal deep water industrial location in Baltimore, Maryland, on one of the finest harbors in the world, see advertisement on page 87, September 18th issue of the Manufacturers Record.

W. S. CAHILL CO.,
Key Highway and Webster Street,
Baltimore, Md.

FACTORY SITES

TWO AND ONE-QUARTER MILES railroad frontage industrial sites for sale at Baton Rouge. Southern Land and Investment Company, Baton Rouge, La.

PATENT ATTORNEYS

PATENTS—Booklet free. Highest references. Best results. Promptness assured. WATSON E. COLEMAN, Patent Lawyer, 724 Ninth St., N. W., Washington, D. C.

FREE "PATENT PARTICULARS"
Sterling Buck, over 23 years Registered Patent Attorney. Prompt and thorough services Suite M 629 F, Washington, D. C.

SEYMOUR & BRIGHT, Registered Patent Attorneys. Established 1876. **PATENTS, TRADEMARKS, COPYRIGHTS.** Prompt and thorough service. Suite 600-4, Barrister Building, Washington, D. C.

PATENTS—TRADEMARKS—COPYRIGHTS
Charlotte office convenient to South. PAUL B. EATON, Registered Patent Attorney, 218 Johnson Building, Charlotte, N. C., and 314 McLachlen Building, Washington, D. C.

EDWARD C. SASNETT, Atty. at Law, formerly a Principal Examiner in the U. S. Patent Office. I offer to inventors and manufacturers a strictly personal service based on twenty years' experience in patent work. McGill Building, Washington, D. C.

REPRESENTATIVES WANTED

WANTED—Salesmen on commission basis only, to sell the Guibert Togglebug Drill. Prefer men selling tools and machinery to structural fabricators. Prefer men in cities Los Angeles, San Francisco, Seattle, Portland, Memphis, Kansas City, Dallas and the South. Address GUIBERT STEEL COMPANY, P. O. Box 1037, Pittsburgh, Pa.

IF YOU HAVE a following among steam boiler operators and are not afraid to work you can make good money by selling our Boiler Compounds on commission basis. We make water analysis and guarantee results on our Water and Metal Treatments. Write for particulars.
SOUTHERN PRODUCTS CORPORATION,
New Orleans, La.

SITUATIONS WANTED

ELEVATOR SALESMAN, long experience, passenger and freight elevators, familiar with Southern territory. Address No. 9051, care Manufacturers Record, Baltimore, Md.

MAN—Experienced in gas field development and operation work, both field and office; also leasing and buying right-of-way, wants job. Ralph Taylor, 605 Piedmont Road, Huntington, W. Va.

MEN WANTED

IF YOU ARE OPEN to overtures for new connection and qualified for a salary between \$2500 and \$25,000, your response to this announcement is invited. The undersigned provides a thoroughly organized service, of recognized standards and reputation, through which preliminaries are negotiated confidentially for positions of the caliber indicated. The procedure is individualized to each client's personal requirements, your identity covered and present position protected. Established twenty years. Send only name and address for details.

R. W. BIXBY, INC.,
103 Downtown Bldg. Buffalo, New York

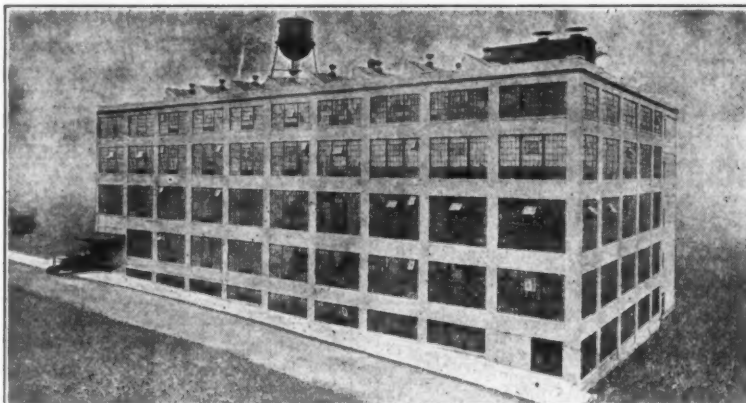
MACHINERY AND SUPPLIES

TO SELL—Westinghouse D. C. Power Plant, 110 volts, with battery, 3 generators of 1500 watts each. In good and smooth operating shape. Being removed because Power Co. energy available. Will sacrifice. Address H. J. PETTIT, Suffolk, Va.

FOR SALE—180 H.P. Bessemer Oil engine, direct connected to Allis Chalmers 115 K.V.A. 2300-3-60 alternator, with all accessories, making a complete and modern power plant. This plant is on original foundation and is in excellent condition. Will sell at bargain and give terms to responsible party, or will consider trade. JNO. T. MANN, 1640 Harwood Ave., Orlando, Fla.

LOOK INTO THIS!

*Your Factory
at Your Price*



This excellent modern structure is readily adaptable to your needs. Flat-slab reinforced concrete, 130,000 square feet, 150-lb. load, 22-ft. bays, ceilings 14' 4" to 20', 2 large elevators (one combination freight-and-passenger),

5c insurance, public service power. Only 20 minutes from City Hall. Plenty of clean, American-born help nearby. Excellent condition, ready for immediate occupancy. Now offered at *half* its actual cost.

Write for Illustrated Circular



ARNOLD·BLAIR·ROTTNER INC.

FRANKLIN TRUST BLDG., Philadelphia, Pa.

Telephone: LOCust 7810



RESALE DEPARTMENT

MACHINERY

EQUIPMENT

SUPPLIES



Electrical Machinery

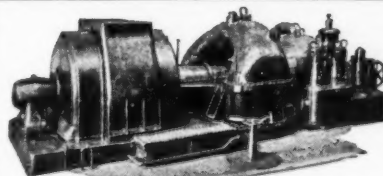
Motors and Generators, A.C. and D.C. for sale at attractive prices. Large stock of New and Rebuilt Motors on hand at all times. Write for our Stock List and prices.

V. M. NUSSBAUM & CO.
Fort Wayne Ind.

FIRE TRUCK FOR SALE

One Three (40 gal. tank) Straight Chemical 1925 Chevrolet Chassis Fire Truck. Complete with standard equipment, in excellent condition.

Address Box 291
Summerville, S. C.



10,000 KVA Turbo typical of 4 units recently delivered and similar to the following.

PRACTICALLY NEW 100% INTERNAL EXCELLENCE WESTINGHOUSE CONDENSING TURBO UNITS COMPLETE—INSTANT SHIPMENT

1—15,000 KW CW-21½ Frame—1800 RPM
1—10,000 KVA CW-11½ Frame—1800 RPM
1—7,500 KW CW-7½ Frame—1800 RPM
1—5,500 KVA CW-7½ Frame—3600 RPM
1—4,000 KVA CW-7½ Frame—3600 RPM
1—1,700 KVA CW-2½ Frame—3600 RPM
1—1,500 KVA CW-1½ Frame—3600 RPM
(3 phase, 60 cycle, standard voltages)

A.S.M.E. CODE DESIGN BOILERS 200-225 lbs.

2—1500 H.P. Cross Drum B & W
2—2650 HP Ladd Bent Tube
5—627 HP Stirling Plant, modern stokers, auxiliaries
5—504 HP B & W Vertical Steel headers, et al.

CONDENSERS MOTOR GENERATOR SETS

Verification and proof of new equivalent condition easily reached on personal inspection
50% to 100% saving on investment

Send us list of your requirements—or what you have for sale

COME TO CINCINNATI



RANDLE

OFFERS BIG BARGAINS IN

Used and Rebuilt Engine Generator Sets, Turbo Generator Sets, Motors, Rotary Converters, Generators, Motor Generator Sets, Engines, Boilers, Steam and Electric Machinery of all kinds, also Machine Tools. Send for our new machinery list. Yours for the asking. Established 50 years

**The RANDLE
MACHINERY CO.**

1734 Powers St., Cincinnati, Ohio

If you want to get
SOUTHERN business
advertise in the
MANUFACTURERS RECORD
BALTIMORE, MD.

Low Cost Long Life UNEXCELLED SERVICE



Three strong factors that have kept Gregory HI-GRADE-REBUILT MOTORS and Electrical Machinery in the lead since 1893.

Before buying consult Gregory's 80-page illustrated Monthly Bargain Sheet. It will save you Money, Time and Worry. Thousands of buyers have proved to their own satisfaction and profit that it pays to buy

**GREGORY HI-GRADE-REBUILT
Electrical Machinery**

Write, phone or wire



**Gregory
Electric
Company**

1801 S. Lincoln St., Chicago

PIPE NEW
SECOND HAND
 Overhauled and Tested
 New Threads and Couplings
 Established 1904
Albert & Davidson
Pipe Corp.
 Second Ave., 50th-51st St., Brooklyn, N.Y.
 Telephone Sunset 1900

SATISFACTION
ALBERT PIPE SUPPLY CO., INC.
 NEW-RECLAIMED-USED
PIPE
 ALL SIZES CUT TO SKETCH
 AND STOCKED
 BERRY & NORTH 13th STS.
 BROOKLYN, N.Y.
GUARANTEED

S. C. BAND MILL CUTTING OUT

80M daily capacity, complete modern outfit, with boilers, kilns, planing mill, standard fire protection system. Also 20 miles 40 pound rail, 3 locomotives, 2 skidders, one track laying machine, 45 log cars. Can now be seen in operation. All in first class condition.

Address

Box 269

Summerville, S. C.

Reconditioned Used Pipe

Prompt delivery from stock.
 Estimates cheerfully furnished on specification work.

MARYLAND PIPE & STEEL CORP.
 Ostend and Scott Sts. Baltimore, Md.

Second Hand and New **PIPE** Overhauled Rethreaded and Coupled

Also Cut to Sketch

Greenpoint Iron & Pipe Co., Inc.
 187-197 Maspeth Ave. Brooklyn, N. Y.

BOILERS

9—Kewanee self-contained return tubular 150 H. P. each.

M. J. HUNT'S SONS
 1620 N. Delaware Ave. Phila., Pa.

PIPE

Rethreaded, reconditioned, guaranteed, suitable for all practical purposes, furnished with new threads and couplings, 400,000 feet in all sizes from 24" to 3/4".

Also large stock of spiral pipe, sizes 7", 10", 12", 14", 20" and 24". Large stock of valves and fittings, screwed and flanged. Can make attractive prices.

MARINE METAL & SUPPLY CO.
 167 South St., New York City

IRON AND STEEL PIPE

Large quantity new and used Government material in excellent condition, ready for immediate shipment. Low prices.

CENTRAL PIPE & SUPPLY CO.
 Box 1099 Charleston, W. Va.

STEEL BUILDING

80' x 258', 19'11" center to center of columns. Weight 230 tons, exceptional condition, low price to move quick.

ZELNICKER IN ST. LOUIS

Rails, Equipment, Machinery, Oil Engines, Steel Piling, Pipe, etc.

FOR SALE

Flour, Corn, Feed Mill.—For sale, cheap: Flour, Corn and Feed Mill in best grain section of state.

J. W. WOOLFOLK
 Fort Valley, Ga.

Machine Tools
 Power Equipment Boilers
 Electric Motors

DELTA EQUIPMENT CO.
 148 N. 3rd St. PHILADELPHIA

GENERATOR

200 KVA, 220 volt, 3 phase, 60 cycle, Burke generator direct connected to Filer-Stowell Uniflow engine.

BOILERS

2—500 H.P. Heine water tube, 160 lb. pressure, ASME code.
 2—180 H.P. Keeler water tube, 200 lb. pressure, ASME code.
 1—150 H.P. 72" x 18' Hor. ret. tubular, 150 lb. pressure, ASME code.

AIR COMPRESSOR

676 cubic foot capacity Ingersoll-Rand Imperial type 10XCB, size 15" and 9 1/4" x 12", 2 stage air compressor, short belt idler drive with 100 H.P. synchronous motor.

METAL WORKING TOOLS

12' Bending roll, belt drive, drop end housing, balance bar, power raise top roll, dia. rolls 13" and 10".
 38"-60" x 32" McCabe double spindle lathe, belt drive, taper attachment and other equipment.
 48" x 18" Lodge & Shipley engine lathe 18 speed geared head, motor drive, quick change, rapid traverse.
 42" x 42" x 12' Cincinnati planer, reversing motor drive, 4 heads, rapid traverse, box table.
 30" x 30" x 8' Dietrick & Harvey open side planer, 1 head on rail, 1 side head, belt drive.
 50" Rochester horizontal boring mill, 3" bar, table 42" x 22", motor drive, rapid traverse.
 24" Gould & Eberhardt shaper, cone drive.
 No. 11 Brown & Sharpe plain grinder, capacity 6" x 32", belt driven.

THE O'BRIEN MACHINERY CO.

113 North Third Street

Philadelphia, Pa.

Reach the Buyers

of used machinery and equipment through the

Resale Department

An advertisement in this department will help sell machinery being replaced or no longer needed in your plant.

Rates on Request

MANUFACTURERS RECORD

Baltimore, Md.

5000 TRANSFORMERS

To Select From

The wide choice and our guarantee insure complete satisfaction. Every transformer guaranteed A.I.E.E. standard. Prices showing 30 to 60 per cent savings to you. Immediate shipments.

We also repair and maintain transformers at big savings.



The **ELECTRIC SERVICE CO., Inc.**
 America's Used Transformer Clearing House
 212 Walnut Street
 Cincinnati, Ohio

We buy modern type transformers—any size—any quantity.
 Wanted especially—high voltage large capacity transformers in carload shipments.





RAILROAD AND CONTRACTORS' EQUIPMENT



RENTAL Contractors Equipment

Can Be
Had
By

Writing, Phoning or Wiring

J. R. CHRISTIAN CO.

603 West Building

HOUSTON, TEXAS

60 LB. RE-LAYING RAILS

1000 tons relayers complete with angle bars and switches—Immediate delivery from Haynesville, La.

All uniformly punched.

MACHINERY

- 1—Model C American Log Loader A-1 Condition steel cab and boom, complete with transfer rails.
- 1—65 H. P. Primus Crude Oil Horizontal Engine, practically new.
- 1—150 H. P. Firebox boiler insurable for 150 lbs. working pressure.

All of above priced at real bargain prices.

M. KAPLAN & SON

Pipe Machinery Supplies

Monroe, La.

20 TON

American Locomotive Crane

Serial No. 912. Only 3 years use. It is actually 95 % new. 8 wheels—outriggers. 48 ft. boom—A-1 operating condition throughout—Big lot of new extra parts.

Will deliver anywhere in South for less than one-third of new price.

W. M. SMITH & CO.

P. O. Box 1709

Birmingham, Ala.

Shovels — Cranes — Draglines

— For Sale or Lease With Option to Buy —

P&H Model 400 Dragline, $\frac{3}{4}$ yard, in good shape, ready to go. Located at Chicago plant.

Northwest Model 105 1 yard Crane. Fully reconditioned. At Hoboken plant.

P&H Model 206 $\frac{3}{4}$ yard Shovel. Thoroughly overhauled and in very good operating condition. At Hoboken plant.

Marion No. 32 1 Yard Steam Shovel on full crawlers. Ready for immediate delivery. An exceptional bargain, located at Pittsburgh.

P&H Model 400 $\frac{3}{4}$ yard Clamshell, 35 foot boom. Has been very carefully reconditioned. At Hoboken plant.

Bucyrus 31-B Steam Shovel. In excellent shape. At Hoboken plant.

Liberal Terms—Large Stock To Pick From—Write Or Wire At Our Expense

EXCAVATING EQUIPMENT DEALERS, INC.

Hoboken, N. J., Los Angeles, Berkeley, Cal., West Allis, Wis., Chicago, Ill.
1706 Willow Ave. 2348 E. 37th St. 2857 Ninth St. 5905 Greenfield Ave. 1040 W. Division St.



SURPLUS EQUIPMENT CRUSHERS

MOTORS, DEISELS

RALEIGH GRANITE CO.
Raleigh, N. C.

FOR SALE OR RENT

- 2—Keystone Graders, Model No. 4.
- 1—10 ton Monarch 3 wheel Steam Roller.
- 1—6 ton Buffalo Tandem Steam Roller.
- 2—10 ton Buffalo Springfield Steam Rollers.
- Large stock Rock Crushers, Screens and Elevators.

JOHNSON & HOEHLER

Fernwood, Del. Co. Pennsylvania

RELAYING RAILS — SWITCHES TRACK MATERIAL

THE PERRY BUXTON DOANE CO.

P. O. Box 5253

Boston, Mass.

BYERS BEAR CAT CRANE FOR SALE

Used less than 3 months. Perfect condition.

Samler Machinery & Equipment Co.

208 W. Pratt St.

Baltimore, Md.

FOR SALE

- P. & H. Model 206, $\frac{3}{4}$ -yd. Dragline.
- Byers, 10-ton Caterpillar Crane, $\frac{3}{4}$ -yd. Clam.
- O. & S. 22 $\frac{1}{2}$ -ton Loro. Crane 50' Boom.
- 16—12-yd. Western Steel Beam Dump Cars.
- 10—50-ton capy. All Steel Twin Hopper Cars.
- 75-ton, 20x26" 6-Drawer Switcher, A. B. M. E.
- 50-ton, 18x24" 6-Drawer Switcher.
- 92-ton, 20 $\frac{1}{2}$ x28" Mikado (2-8-2) BUILT 1922.

35-ton, 18x20" 4-Drawer Sd. Tank.

56-ton, 18x24" 4-Drawer Sd. Tank.

WE HAVE OVER FORTY LOCOMOTIVES IN STOCK. REBUILT AND READY

ALL TYPES. 10 TO 100 TONS

Southern Iron & Equipment Co.,
Atlanta, Ga.

RAILROAD and CONTRACTORS EQUIPMENT

- 40 Standard and 36" Gauge Modern Direct-connected Locomotives, in all types and weights from 8 to 75 tons.
- 10 Standard and 36" Gauge Geared Locomotives, all weights.
- 15 Steam Shovels and Locomotive Cranes of different types and sizes.
- 3000 Tons Relaying Rails, all sizes, on our Birmingham yards.
- 100 Sets 25 and 40-lb. Frogs and Switches; good as new.
- Tie plates, track spikes and track bolts, immediate shipment from Birmingham stock.

Your inquiries will receive careful and prompt attention

BIRMINGHAM RAIL & LOCOMOTIVE CO., Birmingham, Ala.

Let us help you sell your machinery

You may replace certain machinery in your plant this year. Let us help you sell the equipment you will no longer need by advertising it in

THE RESALE DEPARTMENT

Manufacturers Record

Baltimore, Md.

SHOVELS or CRANES

FOR SALE or RENT

RENTAL PAYMENTS MAY APPLY ON PURCHASE

1—Lorain 75-A. combination shovel and clamshell. Purchased new September, 1929. In almost new condition. Located in Eastern Pennsylvania.

1—30-B Bucyrus steam dragline on caterpillars equipped with 35-ft. boom. 1 cu. yd. bucket. Machine in excellent condition, priced for quick sale. Located near Chattanooga, Tenn.

1—Erie Type B steamer, 1 cu. yd. dipper. This machine is in splendid condition and is reasonably priced. Located in Central Tenn.

1—Insley Combination Clamshell and back hoe $\frac{3}{4}$ c. yd. capacity, gasoline power, in good operating condition. This machine is a real bargain. Located in Southern Tenn.

1—Type "O" $\frac{3}{4}$ yard Thew steam shovel center drive truck in splendid condition. Priced right. Can be purchased on liberal terms. Located at Brooklyn, New York.

We have both Steam and Gasoline Excavators ranging from $\frac{1}{2}$ to 1 $\frac{1}{2}$ cu. yd. capacity in various parts of the country that will be sold at extremely low prices or leased with leased payments made applying on purchase price.

CHARLES F. COHEN

LIMA, O., OFFICE:
Lima Trust Bldg.
Tel. Main 4824

NEW YORK OFFICE:
2351 Graybar Bldg.
Tel. Lexington 9934

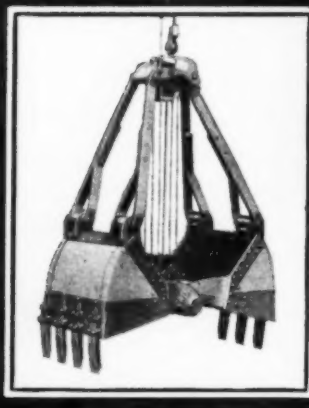
Write or Phone at My Expense

Why An Owen Gets Bigger Bites

OWEN Bucket lips and teeth hit first when the open bucket drops, no other part of the bucket touching the material. Thus the total weight of the bucket is utilized to force the teeth and cutting edges of the jaws into the material. This feature also provides an advantage—not found in any other bucket—the use of the full open spread of the bucket before the closing power is applied.

Owen teeth are of heavy high carbon drop-forged steel with chisel point bevel and correct digging pitch—another reason for clean cut, deep bites. Write for an Owen Folder that explains 17 of these important reasons in detail.

THE OWEN BUCKET CO.
6015 Breakwater Avenue
Cleveland, Ohio



17 POINTS OF LEADERSHIP

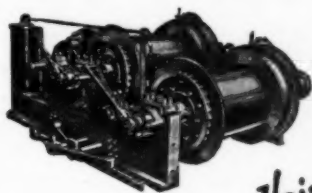
1. One-piece steel cross-head.
2. No wear in upper or lower arm ends.
3. Heavy high carbon steel arms.
4. Adjustable undiminished closing power.
5. Long life to sheaves and cable.
6. Long arm bolt bearings sealed from grit.
7. Lever type steel arm brackets.
8. Closing cable is protected against excessive wear.
9. Heavy shock-resisting renewable lips.
10. Cable clips eliminated.
11. Sealed center shaft bearings.
12. Greater digging power with no dead weight.
13. Penetration and clean dumping.
14. Dropping shocks absorbed, eliminating breakage.
15. Rigid shell construction.
16. Heavy duty high carbon drop-forged steel teeth.
17. Lips or teeth points hit first.



Owen Buckets

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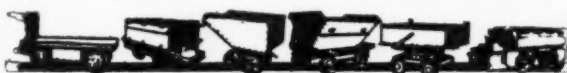
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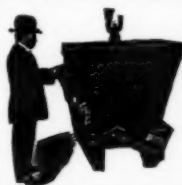
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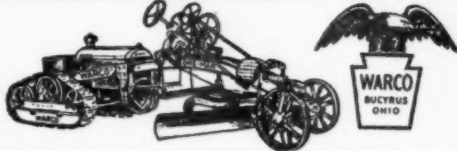


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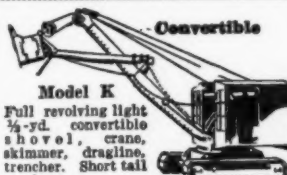
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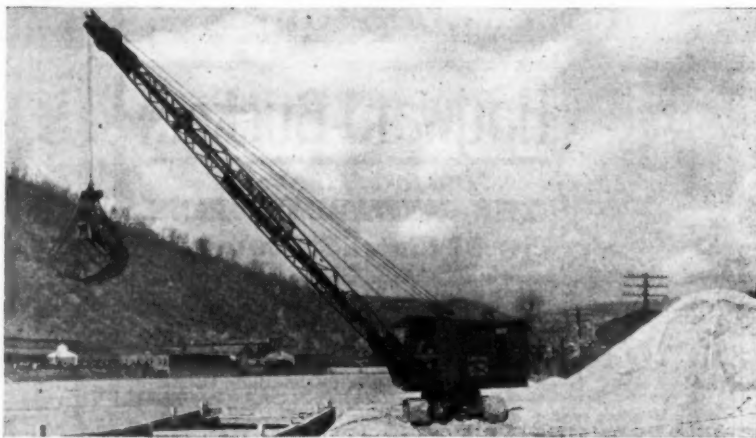
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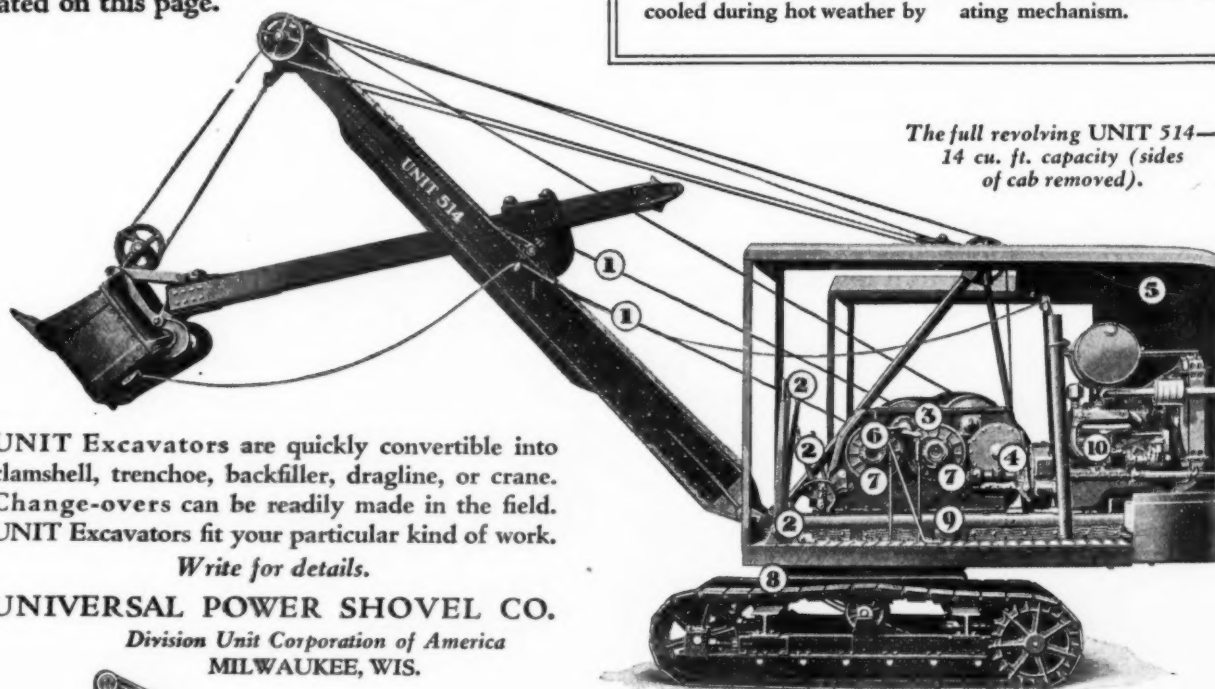
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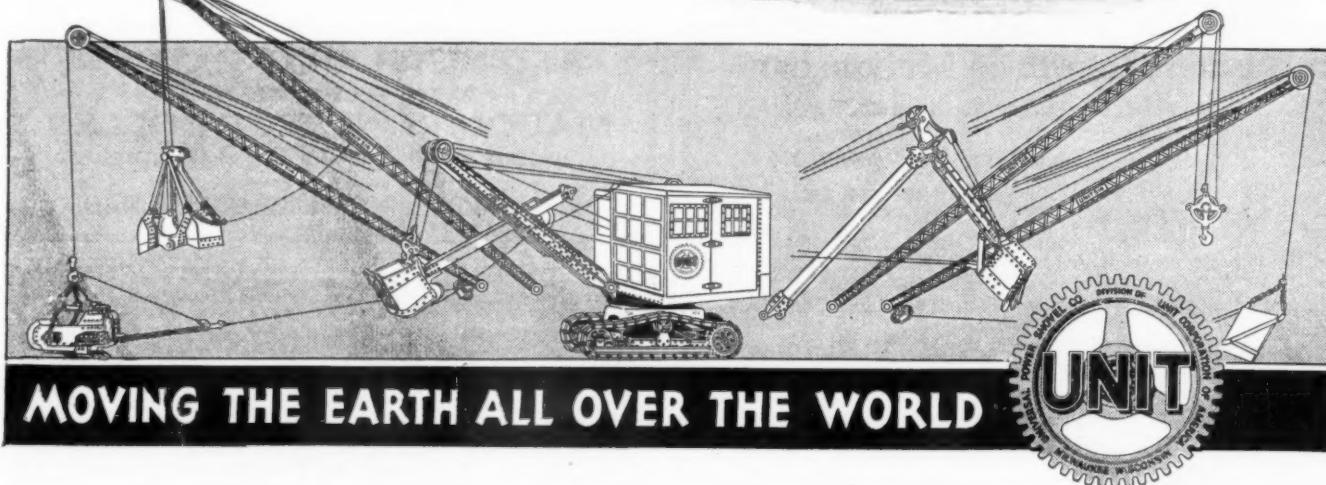
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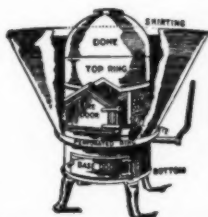
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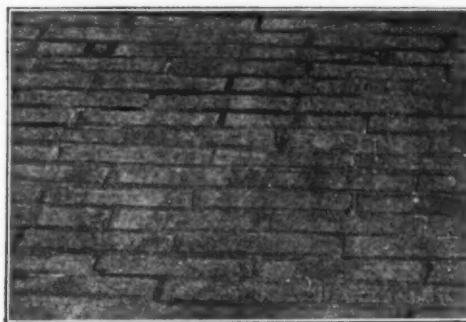


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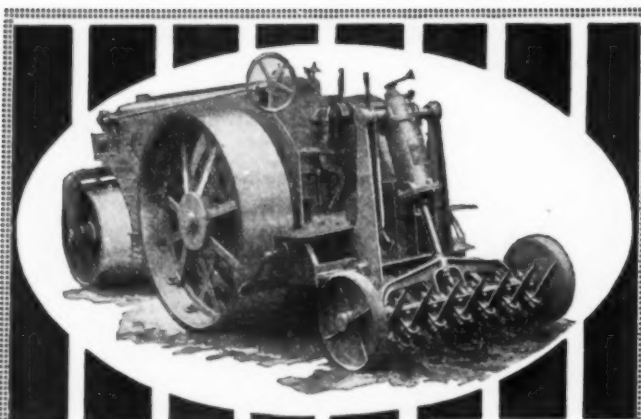
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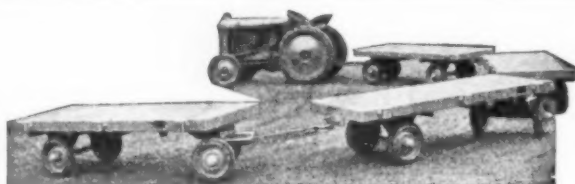
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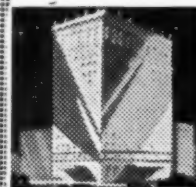
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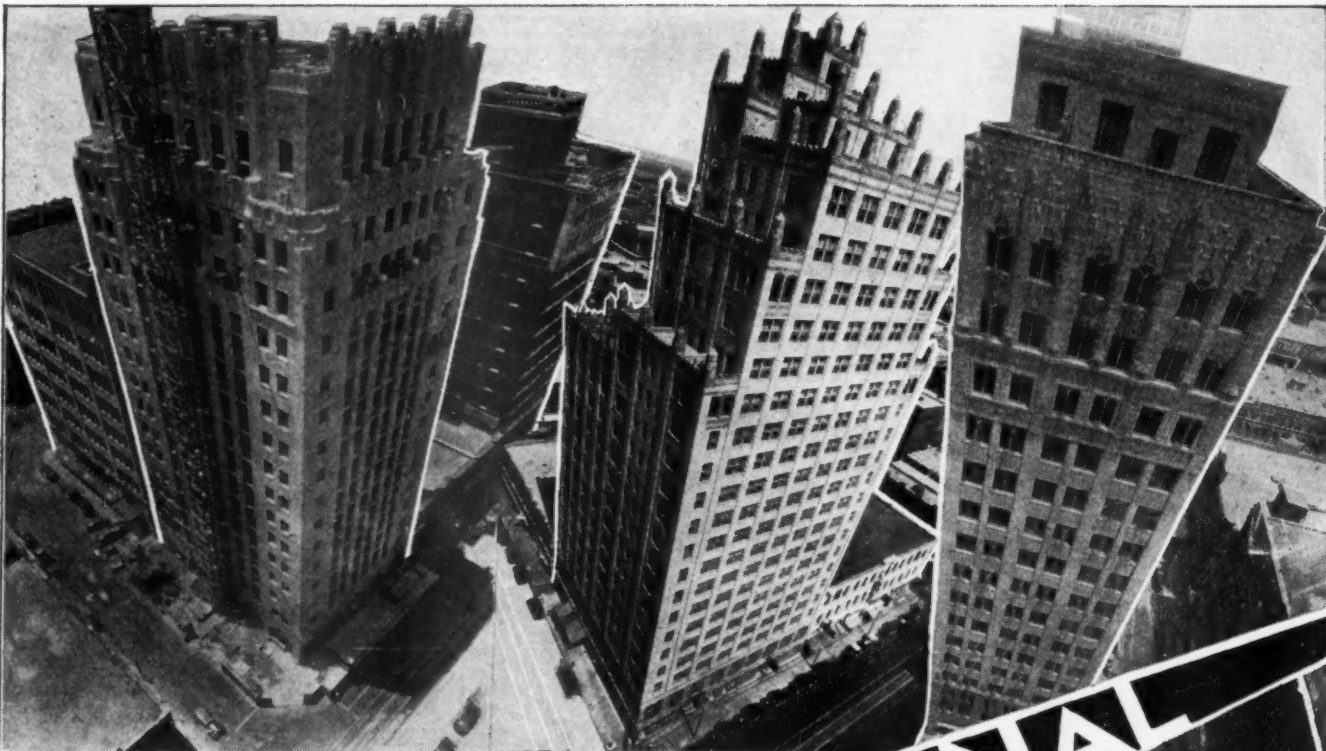
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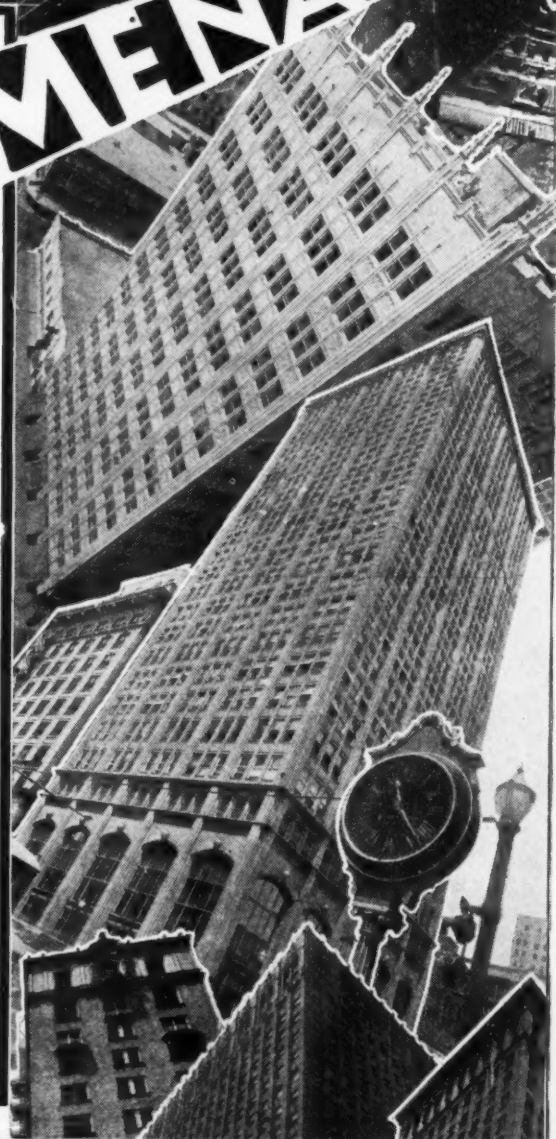
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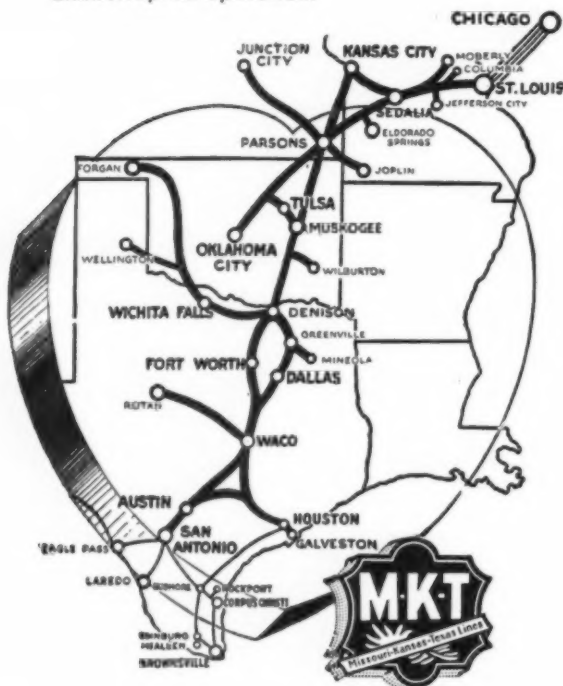
*Extract from a comprehensive survey prepared by the Alabama Industrial Development Board. Copies of this survey will be mailed free of charge to executives of responsible enterprises. Address: Alabama Industrial Development Board, Brown-Marx Building, Birmingham, Ala.

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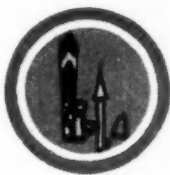
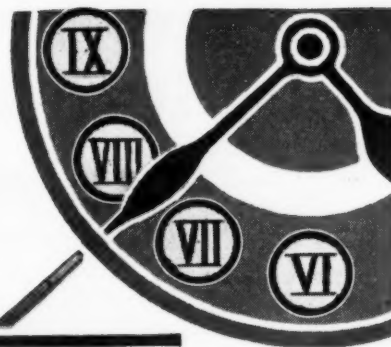
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O. K. Clutch & Machy. Co., Columbia, Pa.
Quincy Compressor Co., Quincy, Ill.
Sullivan Machinery Co., Chicago, Ill.
Westinghouse Traction Brake Co., Wilmerding, Pa.

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Skinner Bros. Mfg. Co., St. Louis, Mo.

AIR HEATERS.

Babcock & Wilcox Co., New York.

AIRPORTS.

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Aluminum Co. of America, Pittsburgh.

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Vogt Mch. Co., Henry, Louisville, Ky.

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Whitney Metal Tool Co., Rockford, Ill.

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Conard & Busby, Burlington, N. J.
Main, Inc., Chas. T., Boston, Mass.

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Boney, Leslie N., Wilmington, N. C.
Chase, Wm. J. J., Atlanta.
Main, Inc., Chas. T., Boston, Mass.
Milburn, Helster & Co., Wash., D. C.
Moyer Co., Tilghman, Allentown, Pa.
Simmons, Inc. & Associates, B. Stanley, Washington, D. C.
Freacher & Co., Inc., G. Lloyd, Atlanta.
Sistrine & Co., J. E., Greenville, S. C.
Wheeler, Walter H., Minneapolis, Minn.
Widmer Engineering Co., St. Louis, Mo.
—(Golf Course, Landscape.)
Draper, E. S., Charlotte, N. C.
Spoon & Lewis, Greensboro, N. C.

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Weber Co., Inc., F., Philadelphia, Pa.

ARCHITECTURAL IRON WORK.

Dietrich Brothers, Baltimore, Md.
Virginia Bridge & Iron Co., Roanoke, Va.

ASH Removal Systems (Gates, Hoppers, Quenchers, etc.)

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—Sluicing Systems.
Allen-Sherman-Hoff Co., Philadelphia, Pa.
—Storage Tanks (Cast Iron).
Allen-Sherman-Hoff Co., Philadelphia, Pa.

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—(Emulsified.)
Headley Emulsified Products Co., Philadelphia, Pa.
—Filler.
American Limestone Co., Knoxville, Tenn.

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Hollowell, Gorham & Co., Greensboro, N.C.
Le Baron, E. T., Jacksonville, Fla.

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Ryerson & Sons, Inc., Jos. T., St. Louis and New York.

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National Equipment Corp. (Insley, Parsons), Milwaukee, Wis.

RAILROAD (Railroad.)

American Limestone Co., Knoxville, Tenn.

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Taylor, Wilson & Co., Inc., Cincinnati, O.

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Baltimore Trust Co., Baltimore, Md.
Bank of Alabama, The, Ensley, Ala.
Bank of New York & Trust Co., N. Y.
First and Merchants National Bank, Richmond, Va.
Maryland Trust Co., Baltimore, Md.
Mercantile Trust Co., Baltimore, Md.

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McClintic-Marshall Co., Pittsburgh, Pa.

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Connors Steel Co., Birmingham, Ala.
Gulf States Steel Co., Birmingham, Ala.
Knoxville Iron Co., Knoxville, Tenn.
Republic Steel Corp., Youngstown, Ohio.
Ryerson & Son, Inc., Jos. T., St. Louis and New York.
Sweet's Steel Corp., Williamsport, Pa.
Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.
Timken Roller Bearing Co., Canton, O.
Virginia Bridge & Iron Co., Roanoke, Va.
Youngstown Sheet & Tube Co., Youngstown, Ohio.

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Carnegie Steel Co., Pittsburgh, Pa.
Chattanooga Boiler & Tank Co., Chattanooga, Tenn.
Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.
Virginia Bridge & Iron Co., Roanoke, Va.

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Timken Roller Bearing Co., Canton, Ohio.

—(Line Shaft.)

Wood's Sons Co., T. B., Chambersburg, Pa.

—(Roller.)

Hyatt Roller Bearing Co., Newark, N. J.
Timken Roller Bearing Co., Canton, Ohio.

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—(Leather, Canvas, Rubber.)

Charlotte Leather Belting Co., Charlotte, N. C.

—Dressing.

Dixon Crucible Co., Jos., Jersey City, N.J.

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Barber-Greene Co., Aurora, Ill.

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Angle Steel Stool Co., Plainwell, Mich.

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Angle Steel Stool Co., Plainwell, Mich.

BENCHES and TABLES.

Angle Steel Stool Co., Plainwell, Mich.

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Gulf States Steel Co., Birmingham, Ala.

—(Steel Loading.)

Blaw-Knox Co., Pittsburgh, Pa.

—(Steel Loading.)

Blaw-Knox Co., Pittsburgh, Pa.

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Hercules Powder Co., Inc., Wilmington, Del.

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Wilson Corp., The J. G., New York.

BLOCKS (Chain.)

Harrington Co., The, Philadelphia, Pa.

—TACKLE for Wire and Manila Rope.

Patterson Co., W. W., Pittsburgh.

BLOW PIPE SYSTEMS.

Skinner Bros. Mfg. Co., St. Louis, Mo.

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Charleston Dry Dock & Machine Co., Charleston, S. C.
Chattanooga Boiler & Tank Co., Chattanooga, Tenn.
Cole Mfg. Co., R. D., Newnan, Ga.
Combustion Engr. Corp., New York, N. Y.
Hedges Walsh Weldner Co., Chattanooga, Tenn.
Lombard Iron Works & Supply Co., Augusta, Ga.
Schofield's Sons Co., J. S., Macon, Ga.
Titusville Iron Works Co., Titusville, Pa.
Vogt Mch. Co., Henry, Louisville, Ky.

—(Oil.)

Babcock & Wilcox Co., New York.

—(Used.)

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O'Brien Machinery Co., Philadelphia, Pa.
Randle Machinery Co., The, Cincinnati, O.
Zelnick Supply Co., W. A., St. Louis.

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Babcock & Wilcox Co., New York.
Harbison-Walker Refractories Co., Pittsburg.

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National Tube Co., Pittsburgh, Pa.
Ryerson & Son, Inc., Jos. T., St. Louis and New York.

—Tubes (Charcoal, Iron.)

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Progressive Mfg. Co., Torrington, Conn.
Republic Steel Corp., Youngstown, Ohio.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
Ryerson & Son, Inc., Jos. T., St. Louis and New York.
Virginia Bridge & Iron Co., Roanoke, Va.

—(Track.)

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Hanchett Bond Co., Inc., The, Chicago.
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Alabama Clay Prod. Co., Birmingham.

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Atlantic Bridge Co., Greensboro, N. C.

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Bristol Steel & Iron Works, Inc., Bristol, Va.
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Ingalls Iron Works Co., Birmingham, Ala.
McClintic-Marshall Co., Pittsburgh, Pa.
Nashville Bridge Co., Nashville, Tenn.
Virginia Bridge & Iron Co., Roanoke, Va.

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Owen Bucket Co., The, Cleveland, Ohio.

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Hayward Co., The, New York, N. Y.
Monaghan Mfg. Corp., Chicago, Ill.
Kiesler Co., Jos. F., Chicago, Ill.
Owen Bucket Co., The, Cleveland, Ohio.
Stuebner Iron Works, G. L., Long Island City, N. Y.

—(Elevator.)

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Edwards Mfg. Co., Cincinnati, O.
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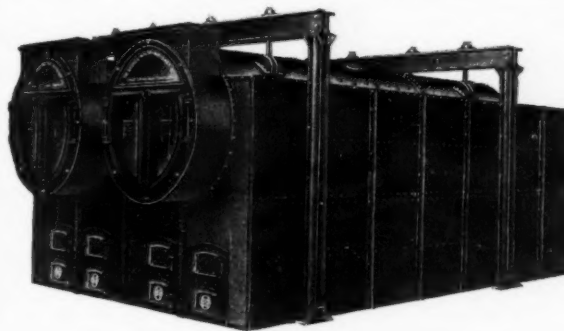
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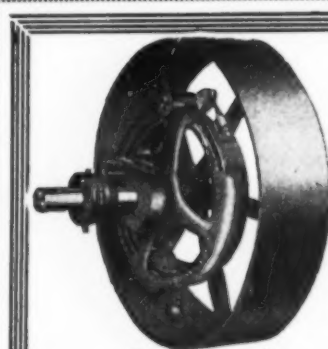
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Northwest Engineering Co., Chicago, Ill.

Ohio Power Shovel Co., Lima, Ohio.

Thew Shovel Co., The, Lorain, Ohio.

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Northwest Engineering Co., Chicago, Ill.

Ohio Power Shovel Co., Lima, Ohio.

Thew Shovel Co., The, Lorain, Ohio.

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Harnischfeger Corp., Milwaukee, Wis.

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Thew Shovel Co., The, Lorain, Ohio.

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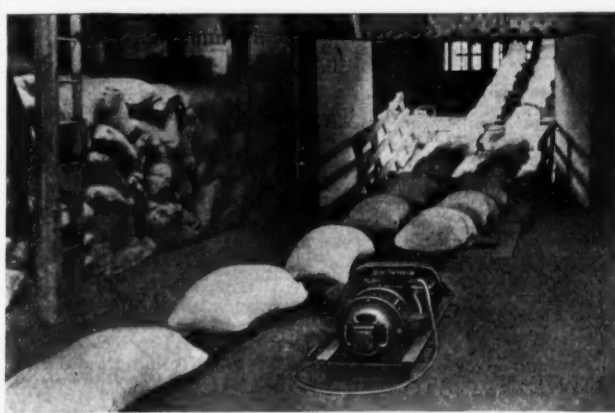
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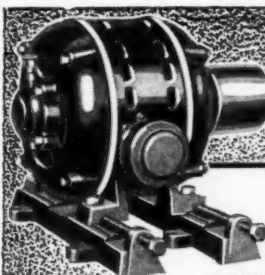
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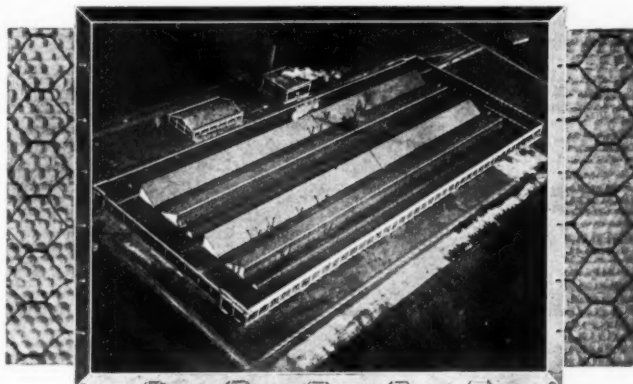
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O. K. Clutch & Machy. Co., Columbia, Pa.
—(Steam.)
Clyde Iron Works Sales Co., Duluth, Minn.
Dake Engine Co., Grand Haven, Mich.
Mundy Hoisting Engine Co., J. S., Newark, N. J.
Street Bros. Mch. Wks., Chattanooga, Tenn.

HOISTS (Air Portable.)

Chicago Pneumatic Tool Co., New York.
Ingersoll-Rand Co., New York, N. Y.
Sullivan Machinery Co., Chicago, Ill.
—(Chain.)
Harrington Co., Philadelphia, Pa.
—(Electric.)
Harnischfeger Corp., Milwaukee, Wis.
Milwaukee Elec. Crane & Hoist Corp., Milwaukee, Wis.
Mundy Hoisting Engine Co., J. S., Newark, N. J.
Novo Engine Co., Lansing, Mich.
O. K. Clutch & Machy. Co., Columbia, Pa.
Street Bros. Mch. Wks., Chattanooga, Tenn.
—(Gasoline.)
Clyde Iron Works Sales Co., Duluth, Minn.
Dake Engine Co., Grand Haven, Mich.
Equipment Corp. of America, Chicago, Ill.
Mundy Hoisting Engine Co., J. S., Newark, N. J.
National Equipment Corp. (C. H. & E. Division), Milwaukee, Wis.
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—(Wooden.)

Dayton Safety Ladder Co., Cincinnati, O.

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Western Electric Co., New York City.

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Ingalls Iron Works Co., Birmingham, Ala.

LATHES.

Sebastian Lathe Co., Cincinnati, Ohio.

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LIME RECOVERY SYSTEM.

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Owensboro Sewer Pipe Co., Owensboro, Ky.

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Whitcomb Co., Geo. D., Rochelle, Ill.

—(Mining.)

Porter Co., H. K., Pittsburgh, Pa.

Whitcomb Co., Geo. D., Rochelle, Ill.

—(Railway.)

Porter Co., H. K., Pittsburgh, Pa.

Southern Iron & Equipment Co., Atlanta.

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Kirby Lumber Co., Houston, Texas.

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Delaware Wood Preserving Co., Phila.

Eppinger & Russell Co., New York, N. Y.

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Kirby Lumber Co., Houston, Texas.

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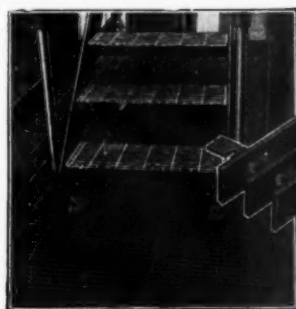
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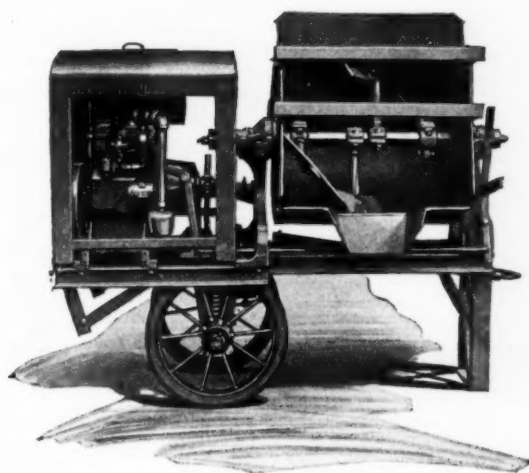
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Every description of fabricated steel

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Electric and acetylene welding and cutting.

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Coleman, Watson E., Washington, D. C.
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Sawett, Edward C., Washington, D. C.
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National Paving Brick Mfrs. Assn., Washington, D. C.

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(Plant (Asphalt.))

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Chicago, Bridge & Iron Works, Atlanta.
Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.
Smith Co., S. Morgan, York, Pa.

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Erdie Perforating Co., Rochester, N. Y.
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Hendrick Mfg. Co., Carbondale, Pa.
Manhattan Perforated Metal Co., Inc., Long Island City, N. Y.
Mundt & Sons, Charles, Jersey City, N. J.

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Dayton Chemical Co., Baltimore, Md.

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McLanahan-Stone Machine Co., Hollidaysburg, Pa.

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Bloss-Sheffield Steel & Iron Co., Birmingham, Ala.
Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.

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Jamney, Jr., Jos. A., Philadelphia, Pa.

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Amer. Creosoting Co., Inc., Louisville, Ky.
Ayer & Lord Tie Co., Inc., Chicago.
Carolina Wood Preserving Co., Charleston, S. C.
Savannah Creosoting Co., Inc., Savannah.
Wales Wood-Preserving Co., Norfolk, Va.

(Steel Sheet.)

Carnegie Steel Co., Pittsburgh, Pa.
Zelicker Supply Co., W. A., St. Louis.

PILLOW BLOCKS.

Goldens' Fdry. & Mch. Co., Columbus, Ga.

PIPE.

Albert & Davidson Pipe Corp., Brooklyn, N. Y.
Albert Pipe Sup. Co., Inc., Brooklyn, N. Y.
Armco Culvert Mfrs. Assn., Middletown, O.
Birmingham Boiler & Engr. Co., Birmingham, Ala.
Central Pipe & Supply Co., Charleston, W. Va.
Greenpoint Iron & Pipe Co., Inc., Brooklyn, N. Y.
Hudson Pipe & Supply Co., Bayonne, N. J.
Maryland Pipe & Steel Corp., Baltimore, Md.
National Tube Co., Pittsburgh, Pa.
Pittsburgh Piping & Equip. Co., Pittsburgh, Pa.
Power Piping Co., Pittsburgh, Pa.

(Cast Iron.)

Amer. Cast Iron Pipe Co., Birmingham.
Cast Iron Pipe Research Assn., Chicago.
Central Foundry Co., The, New York, N. Y.
Glamorgan Pipe & Fdry. Co., Lynchburg, Va.
National Cast Iron Pipe Co., Birmingham.
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Abendroth & Root Mfg. Co., New York.

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(Iron and Steel.)

Everson & Son, Inc., Jos. T., St. Louis and New York.

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Albert Pipe Sup. Co., Inc., Brooklyn, N. Y.
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Hudson Pipe & Supply Co., Bayonne, N. J.
Marine Metal & Supply Co., New York.
Maryland Pipe & Steel Corp., Baltimore, Md.

(Spiral Riveted.)

Abendroth & Root Mfg. Co., New York.
Taylor Forge & Pipe Wks., Chicago, Ill.

(Steel.)

Bethlehem Steel Co., Bethlehem, Pa.
National Tube Co., Pittsburgh, Pa.
Pittsburgh Piping & Equip. Co., Pittsburgh, Pa.
Power Piping Co., Pittsburgh, Pa.
Republic Steel Corp., Youngstown, Ohio.
Youngstown Sheet & Tube Co., Youngstown, Ohio.

(Welded.)

Welded Products Co. of La., Inc., New Orleans, La.

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Reading Iron Co., Reading, Pa.

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Grinnell Co., Inc., Providence, R. I.
Pittsburgh Piping & Equip. Co., Pittsburgh, Pa.

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Bethlehem Steel Co., Bethlehem, Pa.
Carnegie Steel Co., Pittsburgh, Pa.
Central Iron & Steel Co., Harrisburg, Pa.
Chattanooga Boiler & Tank Co., Chattanooga, Tenn.
Granite City Steel Co., Granite City, Ill.
Gulf States Steel Co., Birmingham, Ala.
Ryerson & Son, Inc., Jos. T., St. Louis and New York.
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PNEUMATIC TOOLS.

Chicago Pneumatic Tool Co., New York.
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Amer. Creosote Wks., Inc., New Orleans.
Amer. Creosoting Co., Inc., Louisville, Ky.
Ayer & Lord Tie Co., Inc., Chicago.
Brown Wood Preserving Co., Louisville, Ky.
Carolina Wood Preserving Co., Charleston, S. C.
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Schultz & Son, A. L., Chicago, Ill.
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Luitwieler Pumping Engine Co., Rochester, N. Y.
Myers & Bro. Co., The F. E., Ashland, O.
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Platt Iron Works, Dayton, Ohio.
Viking Pump Co., Cedar Falls, Iowa.
Virginia Mch. & Well Co., Richmond, Va.

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Erie Pump & Engine Wks., Medina, N. Y.
Ingersoll-Rand Co. (A. S. Cameron Steam Pump Works), New York, N. Y.
Manistee Iron Works Co., Manistee, Mich.
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Erie Pump & Engine Wks., Medina, N. Y.
Fairbanks, Morse & Co., Chicago, Ill.
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Morris Machine Wks., Baldwinville, N. Y.
Novo Engine Co., Lansing, Mich.

(Contractors.)

Erie Pump & Engine Wks., Medina, N. Y.

Novo Engine Co., Lansing, Mich.

(Deep Well.)

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Layne & Bowler, Inc., Memphis, Tenn.
Luitwieler Pumping Engine Co., Rochester, N. Y.

Novo Engine Co., Lansing, Mich.

(Diaphragm.)

Novo Engine Co., Lansing, Mich.

(Hydraulic.)

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(Power.)

Platt Iron Works, Dayton, Ohio.

Sterling Engine Co., Buffalo, N. Y.

(Pulverized Coal.)

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(Rotary.)

Viking Pump Co., Cedar Falls, Iowa.

(Sand and Dredging.)

Ellicott Machine Corp., Baltimore, Md.

Erie Pump & Engine Wks., Medina, N. Y.

Georgia Iron Works, Augusta, Ga.

(Steam.)

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Emerson Pump & Valve Co., Alexandria, Va.
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Platt Iron Works, Dayton, Ohio.

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Chicago Pneumatic Tool Co., New York.

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(Water Works.)

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Manistee Iron Works Co., Manistee, Mich.

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Tennessee Central Railway, Nashville.

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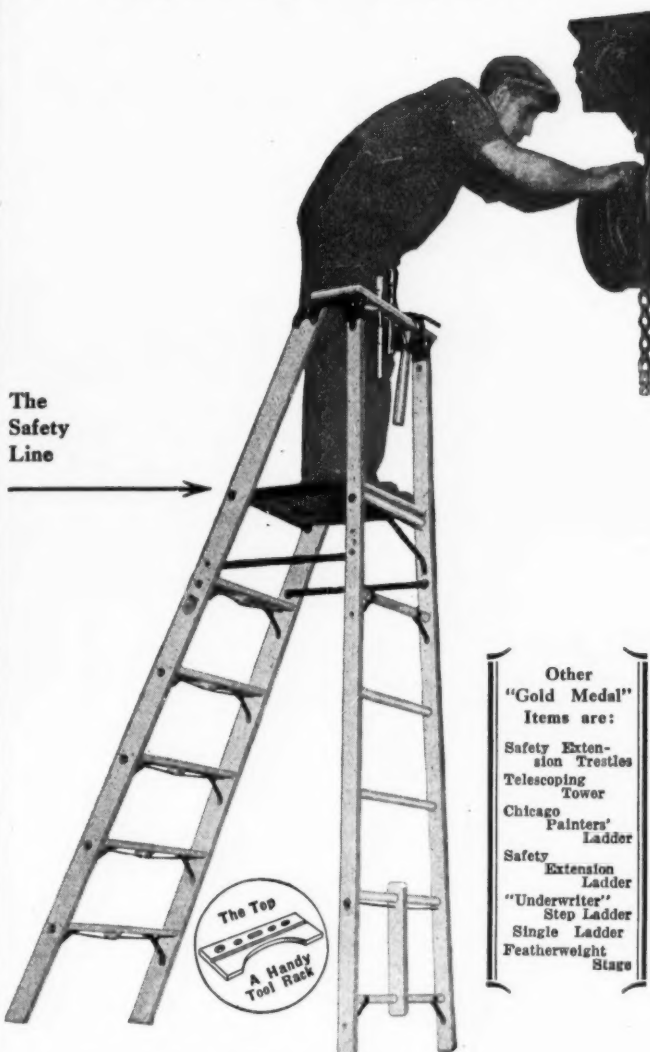
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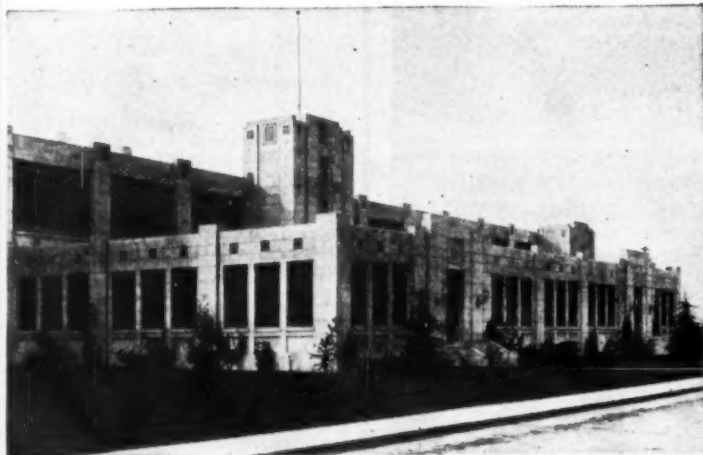
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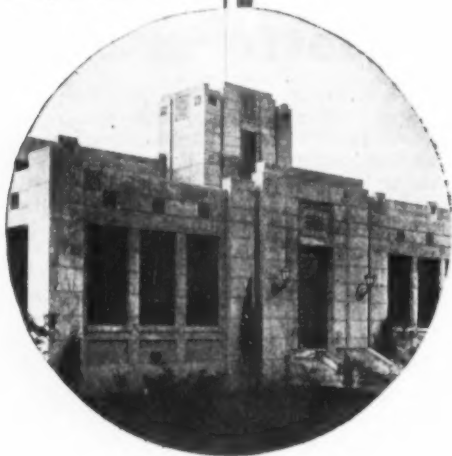


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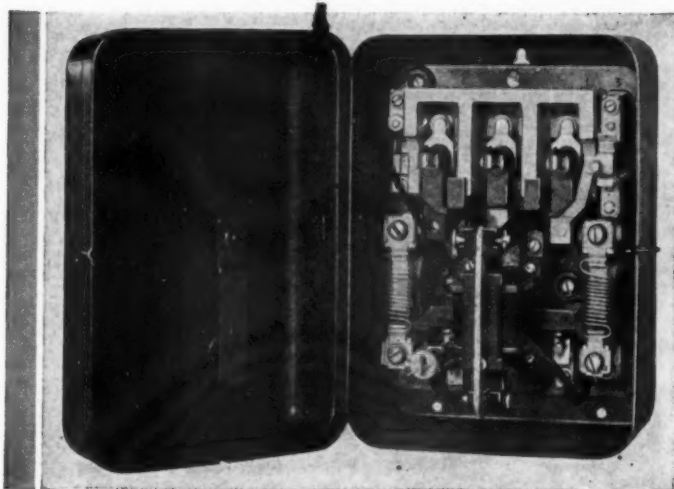
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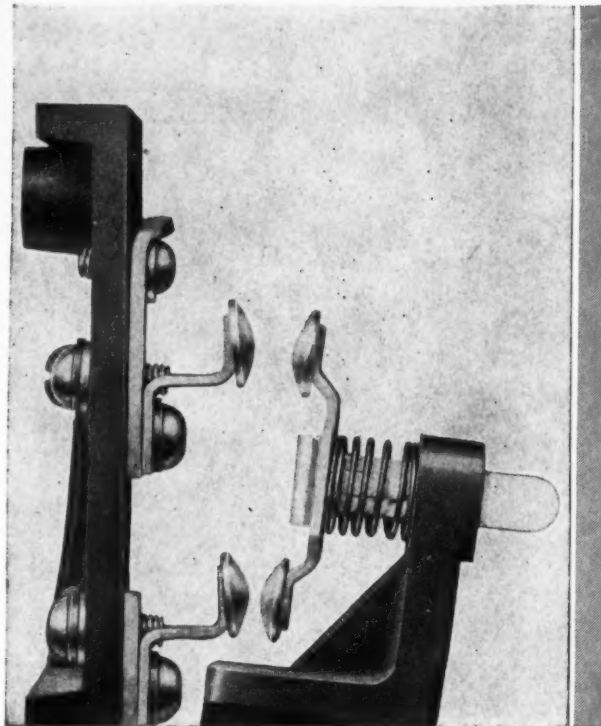
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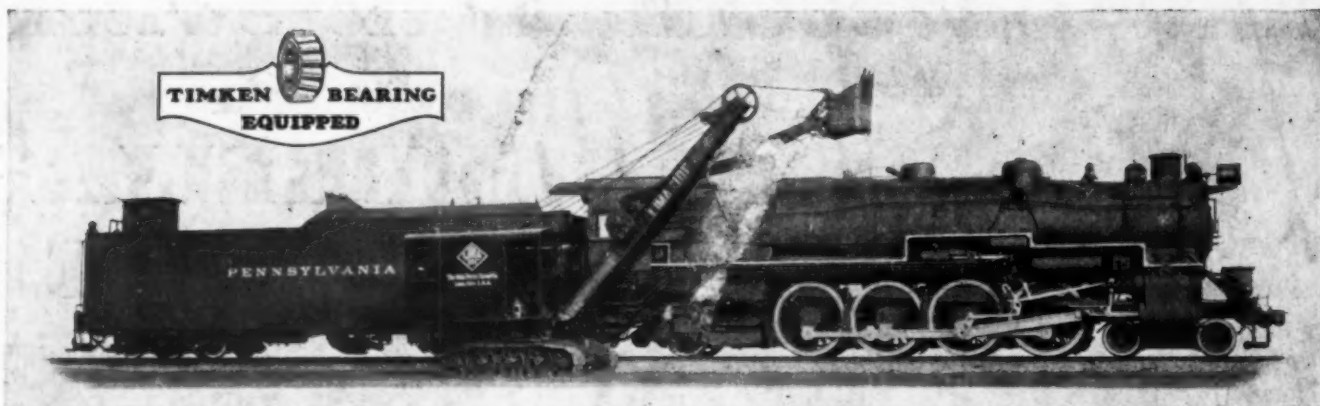
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